

The Short-Term Benefits of Adopting a Real-Time Pricing Rate Structure for
Retail Electricity in the Midwest ISO Region

A THESIS
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

Travis J. Hinck

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF SCIENCE

Deborah L. Swackhamer, Ph.D.

January, 2011

© Travis J. Hinck, 2011

Abstract

By improving the degree to which retail electricity transactions take place under free market conditions and eliminating deadweight losses caused by the flat rate most consumers currently pay, the long-term benefits of charging electricity users based on a real-time pricing (RTP) rate structure are projected to be very large as a percentage of total energy costs. In the Midwest Independent System Operator (MISO) region, the benefits are estimated to be at least \$500 million per year in the long run. However, in order to adopt RTP, significant investments in the infrastructure required to support it must be made. Specifically, smart meters capable of measuring when electricity is consumed must be purchased and installed to replace conventional “dumb” meters used today. The total cost of the transition could be as high as \$10 billion in the MISO region, of which approximately only \$6 billion will be saved directly in utilities’ operational costs. This study was designed to determine whether the deadweight losses eliminated by RTP in the short run are great enough to bridge the gap between the short-term costs of smart meter installation and the short-term gains in operational savings.

The results of the study indicate that the deadweight loss RTP is capable of eliminating in MISO in the short run is valued at approximately \$180 million per year. While large, these benefits will not likely directly convince regulators and utility managers to make the necessary remaining \$4 billion short-term investments in infrastructure. Therefore, regulatory changes, tax incentives, targeted deployment and other policy approaches to promote RTP adoption must be considered if the region is to reap the considerable long-term economic efficiency gains RTP can deliver.

Table of Contents

List of Tables.....	iii
List of Figures.....	iv
Section 1 Introduction.....	1
Section 2 Literature Review.....	2
Section 3 Short-Run Model of RTP in MISO.....	44
Section 4 Analysis of Findings.....	57
Section 5 Conclusions.....	60
Section 6 Policy Considerations.....	63
Works Cited.....	70
Appendix.....	74

List of Tables

Table 1. Market Sectors.....	14
Table 2. Summary of Important Findings.....	58
Table 3. Alternative Interpretation of Findings.....	60
Table 4. Monthly Supply Curve Coefficients.....	74
Table 5. Daily Supply Curve Constants.....	74-77
Table 6. Hourly Demand Coefficients and Deadweight Loss....	77-172

List of Figures

Figure 1. Load Profile in MISO on June 16 th , 2010.....	26
Figure 2. Real-Time Price of Electricity in MISO on June 16 th , 2010..	27
Figure 3. Modeled Supply Curve on June 16 th , 2010.....	50
Figure 4. Modeled Demand Curve at 4PM on June 16 th , 2010.....	51
Figure 5. Modeled Equilibrium Point at 4PM on June 16 th , 2010.....	54
Figure 6. Modeled Deadweight Loss at 4PM on June 16 th , 2010.....	55
Figure 7. Modeled Deadweight Loss at 4AM on June 16 th , 2010.....	57

Section 1 Introduction

The long-term benefits of adopting a real time pricing (RTP) rate structure in the retail electricity market are projected to be significant. The gains are achieved by improving the transparency of the market to allow consumers and producers to exchange accurate price signals, thus allowing the forces of the free market to dictate the most efficient allocation of resources. In today's market, flat-rate pricing results in inefficient energy transactions and deadweight losses that prevent the electricity market from delivering its full potential economic value to society.

In the Midwest Independent System Operator (MISO) region, the long-term benefits of improving the efficiency of the market by adopting RTP are estimated to be at least \$500 million per year [1]. However, deployment of the Advanced Metering Infrastructure (AMI) required to support RTP could cost as much as \$10 billion in the MISO region before any benefits of RTP are realized [2]. Further, the benefits of RTP in the short-term will not be nearly as large as in the long run [3].

The goal of this paper is to quantify the theoretically possible short-term economic gains from implementing RTP in the MISO region. My project entailed collecting market data from MISO over one year and constructing an economic model to describe the observed conditions. I then ran a counter-factual simulation in which RTP was introduced to the model to discover the differences in market behavior induced by RTP. I also conducted interviews with industry experts to hone the parameters of the model and inform a qualitative discussion of my findings.

The results of this exercise were used to determine whether short-term benefits of RTP alone justify the needed investment in AMI to support it.

Section 2 Literature Review

The goal of this paper is to calculate the benefits that could be realized if utilities in the Midwest Independent System Operator (MISO) region were to charge retail customers for electricity usage based on a real-time pricing (RTP) rate structure. In the electricity market today, economic losses occur because retail rates are not allowed to fluctuate. Under this structure, prices are not determined by supply and demand conditions, thus the market is not free and the resulting inefficiencies cause deadweight loss. The value of RTP is its potential to encourage a more efficient allocation of energy resources and recapture deadweight losses. However, before RTP can be implemented, state Public Utilities Commissions must approve of it, system operators must be able to absorb its effects, the technology required to support it must be deployed, and the retail and wholesale markets must be adjusted to capitalize on it. To better understand the role of RTP and the challenges it faces, an outline of important concepts and institutions in the power industry is warranted.

Utilities

The first electric utilities, like the Pearl Street Station in New York established by Thomas Edison in 1882, contracted with customers to provide electricity. At first, this meant building a generation facility near the customer and running wires directly to them. Quickly, generators began selling power to other nearby consumers, meaning they had to run new lines and draw up new contracts. By the turn of the century, most major cities had power companies running wires all over town and new market for electricity had emerged that promised to deliver tremendous economic value.

Early utility managers knew that to remain competitive, they needed to devise methods of improving their energy efficiency. A utility's load factor is the ratio of average power supplied to customers to the maximum amount supplied at any time [4]. Since utilities have to invest the capital to construct generation plants to supply the maximum power demanded, but customers only pay for the energy they use, the load factor not only measures energy efficiency, but is also an important measure of a utility's economic efficiency. To increase their load factors, early managers tried to attract customers with complimentary usage patterns (one that consumed energy in the morning and one that consumed in the evening) or reward customers who consumed at a steady level [5]. In terms of economic efficiency, they were off to a good start, but more than a century later the energy market still has very low load factors, averaging around 50% nationwide on average [6].

The reason for this is that as the young market grew, the stability and reliability of the system became a bigger concern than its efficiency. Many electric companies merged to produce monopolies that could charge high prices, consumers could not easily switch from one supplier to another, and policy attempts to control the situation were fraught with corruption [7]. As more and more people wanted access to electricity, but no overall strategy for delivering it emerged, increasing numbers of lawmakers began to subscribe to Cornell professor Henry Carter Adams recognition that, "The principle of free competition is powerless to exercise a healthy regulating influence [over the electricity market]" [8]. So, at the expense of efficiency, they acted.

Public Utilities Commissions

Electric utilities were born at a time when the country was already struggling with possible methods of managing the increasingly worrisome problem of monopolies. Trust agreements and other forms of non-competitive collusion had created monopolies in the railroad, steel, oil, and banking industries, which drove their product prices up and reduced the benefit they provided to society. Early power companies appeared to be trending towards monopoly status too as large utilities squeezed small suppliers out of the market. The solution in some industries was strong anti-trust laws to restore the efficiency of healthy competition. Though this strategy worked relatively well to limit corporate monopolies, it wasn't that simple for electric utilities because they constituted a "natural monopoly."

Richard T. Ely coined the phrase natural monopoly in the 1880's to describe industries that tend toward monopolistic states regardless of business' intent [9]. In economic terms, a natural monopoly occurs when economies of scale are so large that it is most efficient for one firm to supply the entire market [10]. In practice, natural monopolies often occur when a firm owns the infrastructure required to deliver a good to a given geographic area. Any other firms that wish to compete must either lease the right to use the existing infrastructure from their competitor or invest heavily to build a redundant delivery system, which is a highly inefficient use of resources. This scenario both increases the costs to suppliers and limits the amount of competition in the market, which drives consumer prices up and results in lower quality goods and services. Ultimately, businesses that operate in a naturally monopolistic enterprise cannot provide quality, low-cost goods and still turn a profit under the normal rules of a competitive free market.

In the later years of the 19th century, it was argued that several industries supplying important public services actually constituted natural monopolies. The largest among them were the railroads. It was becoming more apparent that shipping rate increases did not result in higher quality shipping and served only to stifle economic growth. Lawmakers were presented with many possible solutions to the problem including the drastic measure of nationalizing the railroads (socialist ideas were enjoying a period of serious consideration).

The budding Progressive movement offered another type of solution. The argument was that if a small number of elite experts were put in charge of overseeing the affairs of the railroads, they could ensure that rails would serve the public interest without having to resort to total public ownership of the business. The establishment of the Interstate Commerce Commission (created in 1887, but strengthened to have real authority in 1906) introduced the country to the concept of a regulatory commission [11].

In the first decade of the 20th century, the young electric enterprise faced a similar situation to the one the railroad industry had just grappled with. Competition among utilities did not result in better service and a broad consensus emerged that held that utilities operated under the same economic rules as railroads. That is, they constituted a natural monopoly. Again, many possible solutions were debated and several were implemented. Some local governments awarded franchises to certain electricity producers to operate a legal monopoly to supply the region with power. Others tried outright public ownership by creating municipal utilities and ousting private competitors. Both strategies were overwhelmed with pervasive government

corruption or the perception of it because dishonest public officials who had become accustomed to bribes from railroad and oil companies expected that electric suppliers would follow suit, which they often did [12]. In many circumstances, corruption made the original problem of high prices and low quality service even worse.

Very quickly, it was suggested that the same regulatory solution used in the railroad industry could be applied to electric utilities. The increasingly popular Progressive movement billed itself as anti-corruption and also offered a proven solution to the problem at hand. Furthermore, many of the utilities themselves agreed that regulation was preferable to municipalization or destructive competition. The agreement on the issue is what author Richard Hirsh calls the “utility consensus” and it resulted in the advent of the public utilities commission, or PUC [13].

The fundamental function of a PUC is to balance advocating for the public interest and protecting the businesses under their jurisdiction to “ensure safe, reliable, and efficient utility services at fair and reasonable rates” [14]. The theory, as postulated by Progressive era thinkers, is that experts who understand the technical capabilities and financial operations of utility companies should be appointed as regulatory commissioners. They then have the authority to enact and enforce rules to protect the right of utilities to operate as a monopoly and ensure that investments made by utilities are prudent in terms of promoting the public interest. Specifically, this meant that PUCs generally approved projects that expanded access to more people or cut down on power outages. The real advantage of the PUC concept is that once appointed, commissioners operate autonomously, making them an independent third party insulated from both political corruption and industry excesses.

Of particular importance to this paper, PUCs also must approve the retail rate at which utilities charge for electricity. Their goal is to approve a rate that is as low as possible for consumers, yet ensures that utilities will always be able to build enough capacity to meet demand, even at its peak. Utility investments that increase capacity to meet peak demand are approved by the PUC and the costs are passed on to customers in their rates. Unfortunately these objectives somewhat diminish the competitive advantage of improving load factors. Thus, a major incentive for utilities to produce electricity more efficiently became a regrettable, but necessary casualty of regulation. Though the market has seen many major changes in the last century, retail electricity rates today must still be approved by state PUCs.

Because regulation altered the incentives for power companies, there were definitely valid concerns that government reaching so far into the affairs of private business could seriously damage the free market. In fact, for exactly that reason, regulation of this kind was clearly unconstitutional except under the 10th amendment, which left the option to the states. A series of legislative acts nicknamed the “Wisconsin Idea” passed in 1907 and, among other progressive ideas, made that state the first to test the concept of the PUC [15]. Despite the concerns, it was unquestionably successful. By 1914, 45 (of 48) states had adopted similar strategies and the state level public utilities commission model dominated the industry for more than six decades.

The main reason that the monopoly-with-oversight model was so successful was that demand for electricity exponentially skyrocketed. Utilities were able to make investments in generating capacity without fear of losing customers to competitors.

Inventors with readily accessible electricity dreamed up a multitude of uses for it like washing machines, vacuum cleaners, and refrigerators that stoked the fire of demand. At the same time, technological advances in generating equipment meant that as new power plants were built, the average cost of supplying electricity went down and reduced the rates customers had to pay. It was an enormous feedback loop in which growth fueled demand, which fueled more growth.

From this cycle emerged the framework for an interconnected national electric grid infrastructure that continues to evolve today. In 2003, the National Academy of Engineering named the electric grid the greatest engineering achievement of the 20th century [16]. Seeing it top a list that included the inventions of the automobile, airplane and internet along with nuclear technologies and the development of spacecraft, one can begin to appreciate the success of both the electricity market and the public policies that harnessed it.

There were a couple of important events between the Wisconsin Idea and 1973. For example, the New Deal era saw a regulatory overhaul to prevent abuses committed by holding companies that financed utilities. The period also resulted in an expansion of federal powers in the creation of the Tennessee Valley Authority, the Rural Electrification Act, and a strengthened Federal Power Commission (now the Federal Energy Regulatory Commission, or FERC). However, the relationship between customers, utilities, and the state PUC remained unchanged until an energy crisis prompted a new wave of thinking about how our country uses its resources.

Deregulation (Free Markets)

Following the national energy crisis of 1973, President Jimmy Carter was elected in part because of his plan to address energy inefficiency. Along with several new taxes and incentives, he also proposed expanding federal authority over state PUCs to improve overall energy efficiency and conservation nationwide. Of importance to this paper, the Carter administration recommended reforms that would encourage utilities to adopt rate structures based on marginal pricing, which would have reintroduced a drive to improve efficiency [17]. Specifically, the proposal recommended time-of-use rates that charged customers different prices for the energy they consumed based on when they used it. The effect that these rate changes would have had is unknown because they didn't survive the legislative process to become law.

By the time Congress passed legislation on the subject in 1978, it had been several years since the crisis and public support for reform was low. Furthermore, since conservation and efficiency measures would have the effect of reducing total energy consumption in the country, influential utility managers were loath to support a plan that reduced demand for their product. Thus, the resulting legislation was a watered down version of the original plan that had few of the proposed provisions and did little to directly improve efficiency. In fact, many observers thought the series of bills on the subject did very little at all. In particular, the rate reforms recommended by Carter were scuttled or stripped to insignificance.

However, one small part of one bill that eventually passed did have a decidedly large impact on the electricity industry. Section 210 of the Public Utilities Regulatory Policies Act (PURPA) was a relatively obscure provision that received

little attention at the time it was signed into law [18]. The purpose of the section was to bolster the usage of cogeneration and small power production plants.

Cogeneration plants allowed their owners to efficiently generate electricity and steam at the same time, so some private companies used them because it was cheaper than buying both separately. But if they generated more electricity than they could use, the only possible buyer for it was the local utility. Utilities constituted a monopsony buyer of electricity; they could underpay for it because nobody else was legally allowed to bid. Section 210 of PURPA allowed these plants to sell excess electricity they produced directly to utilities for a calculated set price and do so without having to answer to regulators about how they were generating it. The section fit with the rest of the bill because it promoted the use of more efficient energy consumption, but since cogeneration constituted a negligible part of the electricity market, nobody gave the provision much thought.

It turns out that by allowing small, independent producers to supply electricity at a guaranteed rate, PURPA spurred private generation and investment into finding cheaper ways of producing energy. Though private providers still supplied a small fraction of the energy market, the potential for free market control of energy prices led to more people beginning to think what some economists had postulated as early as 40 years before - perhaps the electricity market no longer required regulation [19].

The economic argument against regulation was that the enormous economies of scale present in the early energy market had been exhausted. Technological advances meant that building a small generation facility to supply few customers did not inherently equate to higher unit cost of production. Also because of advances, the

cost of entry into the market was no longer prohibitive. Many small firms could provide the same quality of service at the same cost as one large one. In short, utilities no longer constituted natural monopolies.

With this economic paradigm, many examples of inept or corrupt regulators, and now hard evidence of the value of competition from PURPA, proponents of deregulation could make a compelling case that regulation was a wasteful, even harmful, endeavor. Moreover, President Ronald Reagan, reflecting the country's disposition in the 1980s, posited in his first inaugural address, "Government is not the solution to our problems, government is the problem" [20]. This political attitude was highly conducive to the movement to deregulate the energy market.

An important concept to keep in mind is the difference between the wholesale and retail electricity markets. The wholesale market consists of generators selling power to Load Serving Entities (LSEs). Then in the retail market, LSEs sell power in smaller chunks to individual customers at their home or business. It can get confusing because even today a utility is most often actually both a generator and an LSE. This configuration is a relic from the pre-PURPA era when there was no reason for a wholesale generator to be separate from a retail supplier. The PUC regulated both investments made in power generation and rates charged to customers, so there was no reason private companies would have an interest in separating the functions and trying to mine value from between them.

This started to change as the 90s saw the electricity market move toward reliance on free market competition. The Electric Power Act of 1992 (EPAAct) achieved what some thought was just another of many steps away from regulation by

allowing any independent power generators to sell electricity into the wholesale market, not just the cogeneration and small capacity plants that qualified under PURPA [21]. The act also required that utilities allow open access to their transmission networks to facilitate competition among wholesale market participants. In this way, it was believed that competitive prices would settle at an efficient economic equilibrium without the need for regulation.

An important note for this paper's topic is that the EPAct did not allow for retail competition; PUCs still had (and still have today) the authority to regulate customer rates. After the wholesale markets were freed from regulation, some thought the next logical step would be to emancipate the retail markets as well. By eliminating retail regulation, consumers would be exposed to changing rates at different times of the day or year or whatever rate structures LSEs thought were economically efficient. Rates would reflect actual production costs and consumers would be able to choose when it was in their interest to pay for service.

Theoretically, if the retail market were designed correctly, it would be ripe for harvesting economic surpluses the same way the wholesale market was. However, the actual design of such a market was postponed indefinitely because it turned out that the industry was barely able to absorb the effects of the EPAct.

Although the EPAct enabled competition to generate real value, it also highlighted two fatal flaws of a totally free energy market [22]. The first, a result of the physical nature of electricity, is the need for a coordinated system operator. The grid requires very complex management: voltages and frequencies of every generating facility must match precisely, there must always be a generator supplying

electricity at that very instant it is demanded, there must be enough excess capacity to deal with unanticipated demand or generator failure, measures must be taken to avoid catastrophe when the system is taxed to its limit, and someone has to repair downed power lines. There MUST be a system operator. Producers supply energy to the grid and consumers draw from the same grid. Both benefit economically from transactions with each other, but neither has a competitive interest in maintaining and managing the complex infrastructure required to do business.

The other problem is that economic exchanges between local producers in one area and those in another are difficult to manage. As a result of deregulation, the wholesale market was fragmented into many small markets in which large generating firms could exercise market power. Thus, the new configuration of the industry threatened to destabilize both the transmission infrastructure and financial market it depended upon. In fact, in the summer of 2000 that very threat materialized in California where they had taken deregulation even further than elsewhere. The situation culminated in energy prices in some hours reaching 20 times previous levels and caused the complete collapse of the whole California electric market [23]. Eventually, the state had to temporarily take over just to turn the lights back on.

Economically, maintaining a transmission network is a transaction cost and it is not small. Engineers, regulators, utility operators - pretty much everybody - knew that there needed to be an independent party to control the physical flow of power and absorb the transaction costs of doing business, but they just could not reach an agreement as to how reconcile that fact with the push for deregulation. As events like the California energy crisis made it clear that government would still have to play a

role in the energy market, the word of the day changed from deregulation to restructuring.

Restructuring (Regional Trade Organizations)

Restructuring and deregulation were originally interchangeable terms, but the restructuring of the market that is still in progress today has a slightly different connotation than before the California energy crisis. The economic impetus for deregulation is sound because there are gains to be had if buyers and sellers receive accurate price signals that aren't passed through a regulatory filter. But electricity is physically different from other commodities. A transaction is more than just an agreement to exchange money for a service; it also depends upon reliable, complex, and instantaneous interactions with the grid.

The regulatory commission model recognized that the physical component of the electricity market required oversight. The deregulation movement strived to free the financial component of the market to reduce economic deadweight loss. Attempting to tease out the best of both worlds, restructuring has aimed to divorce the financial elements of the power market from the physical ones and manage them separately. Table 1 conceptually illustrates the makeup of the wholesale market.

Market Sector	Generation Facilities	Transmission	Load Serving Entities (Utilities)
Financial	Producers	Transaction Costs	Consumers
Physical	Power Source	Power Lines	Load

Table 1. Market Sectors

The first major change of course since the beginning of the deregulation era came when FERC issued Order 2000 (in December of 1999) encouraging the formation of Regional Transmission Organizations (RTOs) [24]. These newly created entities would have the ability to design and manage electricity markets within their geographic region. Today there are 9 RTOs in the US and Canada that supply electricity to the majority of people who live there. Order 2000 was carefully designed to lay out the dual roles that RTOs would play. On one level, they manage the physical grid by controlling generators and loads. On another, they manage the financial market by facilitating transactions between producers and consumers. The RTO is also responsible for other tasks such as managing the seams (shared connections) with bordering RTOs and coordinating with entities within their footprint that opt not to participate in the RTO, but their fundamental functions are the dual roles laid out by Order 2000.

In their first role, RTOs are charged with providing the essential service of balancing overall energy consumption and generation in the prescribed region. To do this, the RTO has final say as to which generation units must operate and how much power each LSE can draw. The RTO is also responsible for ensuring the stability of other aspects of the physical grid like managing reactive power, monitoring phasors, and islanding areas that are at risk for destabilization. In short, they push the buttons and spin the dials to make the thing go.

In their second role, RTOs are responsible for establishing and managing a competitive market where the financial transactions take place. Very importantly, the RTO itself is not allowed to participate in the market, only operate it. To examine

how this market works, take the Midwest Independent System Operator (MISO) RTO as an example [25].

Midwest ISO

MISO covers a geographic footprint that includes 14 states and one province stretching from Ohio to North Dakota. The cost of generating electricity and the cost of supplying it to customers changes drastically from place to place within MISO's footprint, so the region is broken into thousands of nodes for which these costs are calculated. The Locational Marginal Price (LMP) is the value of energy at a given node and specified time. It represents the price at which the marginal cost of generation equals the marginal benefit of consumption. Because these costs are determined at such a high geographic resolution, it provides an incentive for constructing generation plants and building load centers (homes and businesses) in the most economically efficient locations possible. To calculate the LMP, MISO actually operates two separate exchanges, the day-ahead market and the real-time market.

In the day-ahead market, MISO divides the day into hour-long segments. For each hour, market participants confidentially submit bids that represent how much energy they are willing to produce or would like to consume over a range of possible energy prices. Effectively, this means generators are submitting supply curves and LSEs are turning in demand curves. MISO then uses a complex algorithm to process the bids and calculate the most efficient LMP for each node in the entire region. This amounts to finding where supply and demand curves intersect. Under the rules of participating in MISO, the bids submitted to the day-ahead market are binding

agreements. Generators who are selected, based on their bid, are obligated to supply energy to the grid at the price they quoted. The day-ahead market clears at 5PM each day, after which MISO issues commitment notifications to the parties whose bids are selected. In this way, the RTO is able to plan and control the majority of the physical schedule for matching generation and load.

However, demand for electricity changes constantly and the difference between the day-ahead schedule and actual conditions is made up in the real-time market. To maintain the real-time market, MISO constantly communicates with all market participants and uses another algorithm to continuously calculate LMPs in five-minute intervals. If demand spikes above forecasted levels, often due to weather conditions, the real-time locational price will go up. Generators who weren't willing to operate at a lower price will then be called upon to meet the need and they will be compensated at the higher price for their services. When the real-time market clears, which happens every 5 minutes, it gives MISO the authority to immediately adjust the physical generation and load conditions to maintain balance.

Incidentally, MISO also operates a third exchange called the Financial Transmission Right market. This market is entirely financial and does not correspond to physical power transfers. Instead, it provides a venue for market participants to hedge their bets in the day-ahead and real-time markets and creates a buffer to protect market participants against price volatility.

The RTO model addresses the problems seen in the completely unregulated market, but still has one major drawback. In order to maintain stability of the grid, there needs to be some excess power generated at all times. The excess is used to

respond to demand spikes and ensure that supply always meets demand. To ensure that there would always be excess power available before the deregulation movement, PUCs simply mandated that generators build more capacity than demand forecasts predicted would be necessary. However, today generators are wary of building the needed excess capacity that most often goes unused (and unpaid for). This is a highly efficient practice economically, but in terms of maintaining energy balance, this means that operators are running the system at the very edge of stability at all times. Despite this drawback, the system works. The wholesale energy market today is closer to being a functional free market than ever before.

Summary

To paraphrase this history, prior to the 1980s utilities were vertically integrated entities that owned and operated three distinct sectors of the energy market: generation, transmission, and distribution (load service). They had to be regulated for two reasons. First, regulators must ensure that system-wide generation and load matched in order to protect the grid from destabilization. Second, because utilities constituted a natural monopoly, they had to be reigned in to protect customers from stifling energy prices and poor service. The deregulation movement was driven by a belief that generation and load could balance themselves according to free market principles and that balance would naturally control prices, but it failed to address the fact that the transmission sector still needs oversight to maintain the infrastructure that all parties rely on. The restructuring of the market into RTOs aimed to divide the energy market into three independent sectors. It isolated transmission so it could be regulated and established a venue to allow generation and load service to be governed

by the forces of the free market. This most recent iteration of attempting to improve the energy market has resulted in a system that both efficiently allocates resources at the wholesale level and protects the physical stability of the grid reasonably well.

However, the changes in the electricity industry to date leave us with a competitive, efficient wholesale market on the supply side and a regulated, nonresponsive retail market on the demand side. Now that we've achieved some degree of stability in the wholesale market, it is this author's opinion that turning our attention to the retail market could reveal similar opportunities for improvement. The retail market is where LSEs sell electricity to homes and businesses. For most people, this interaction is all they know about the energy market; every month they pay an electric bill equal to the amount of energy they consumed multiplied by a constant rate of charge. It is possible that large economic surpluses are being wasted every day due to inflexible rate structures in the same way the original regulatory commission model resulted in deadweight losses in the wholesale market.

Looking back, the 120-year history covered in this section illustrates that continually testing new ideas can lead to a more productive and efficient allocation of resources. However, another important lesson learned is that energy policy can have very far-reaching, and sometimes unanticipated, effects. Policy does matter. And to the extent that policy matters, it's important that we get it right. Looking forward, the technological advances described in the next section are making it possible to consider using real-time pricing rate structure in the retail electricity market. Following that, the discussion will turn to the costs and benefits of RTP rate structures along with the necessary policy alterations needed to accommodate them.

Smart Grid

The electric grid today is the largest, most complex machine ever built by humans. Still, the technology it comprises has not changed significantly in the last 100 years. For the most part this is because energy prices have been low and the grid has served its purpose relatively well. Also, since each component of the grid must interact with every other one, fundamental changes are difficult to affect without disturbing the existing infrastructure. But as demand begins to push the limits of the grid, national security becomes a more salient issue, and the desire to use more renewable energy increases, it is becoming apparent that the grid needs updating.

This realization is manifested in the recent buzz around the Smart Grid. The Smart Grid is a blanket term referring to several technologies that have the potential to improve the way the grid delivers power [26]. Contrary to a common misconception, installing a Smart Grid does not entail ripping up the country's more than 300,000 miles of transmission lines and starting from scratch to replace them with smarter wires. Instead, Smart Grid technologies will be grafted on top of the existing infrastructure to enable improvements in grid reliability, security, efficiency, and functionality.

The one word that best summarizes the advantages of the Smart Grid over today's technology is speed. Advanced Metering Infrastructure (AMI) will allow LSEs to monitor all of their customers' consumption in real-time. Digital controllers and communication devices will transmit critical information from millions of locations on the grid to system operators instantaneously. Complex software capable of processing all of these data will be able to maintain situational awareness at several

orders of magnitude higher resolution than current technology allows. Algorithms built into the software will be able to make minor adjustments to react to small changes in the system and even self-heal some failures without operator input [27]. When a large problem arises, operators will know exactly what is happening nearly immediately and be able to act accordingly to avert catastrophes. Another way of thinking about Smart Grid is that it will create an information network on top of the physical transmission and distribution networks. In a way, Smart Grid is to energy infrastructure as the internet was to commercial supply chains. Overall, the Smart Grid will work to correct some major hindrances suffered by the current system.

In many cases today, utilities are not aware of a power outage unless someone calls in to report it. More significantly, in some cases where a major transmission line or transformer is knocked out, operators have no warning and can only do their best to react to the event several minutes after it occurs. In fact, the supervisory control and data acquisition (SCADA) system that most operators use is so old that the best way to adjust power flows is often by placing a telephone call to a generation facility. This slow process means that when problems arise quickly, operators may have to intentionally cut power to large numbers of customers to prevent unstable conditions from snowballing into larger blackouts. In rare, but increasingly common, instances, rolling blackouts can disable huge swaths of the grid for days. For example, a blackout on August 14, 2003 cut power to 50 million people in eight northeastern states and two provinces. It was caused by an overtaxed transmission line in Ohio coupled with the fact that operators did not have the ability to respond quickly enough to reroute power when the line failed. This single incident cost the region over \$6

billion and it is estimated that power outages across the country cost upwards of \$70 billion annually in lost productivity [28]. As demands push the limits of the grid further, power outages of all sizes are becoming more common and more costly.

A scary extension of the blackout issue is the possible implications it has on national security. Someone with basic knowledge of the grid and nefarious intentions could purposely cause a major blackout. With some preparation, they could plan the disturbance to effect politically or economically sensitive targets. The Department of Homeland Security is aware of these threats and develops measures to counter them as best it can. Still, the grid is one area of society that is particularly susceptible to possible acts of terrorism.

Another drawback of antiquated grid monitoring equipment is that it cannot handle a large number of intermittent power sources [29]. This is significant because many important developing sources of energy, like wind and solar, are intermittent. When there is a lull in the wind or a cloud passes in front of the sun, power output from these sources will momentarily sag. Because they cannot act quickly enough to respond to minute-by-minute changes, system operators cannot afford to rely on intermittent sources for a significant percentage of total supply. As concerns about climate change and dependence on foreign oil heighten, policymakers and power generators will be looking for more ways to incorporate renewable energy into the market. But if the grid can't handle the power they supply, there is nothing to gain by building more renewable generation facilities.

More broadly, today's grid is not equipped to handle distributed generation of any kind. If small sources of power wish to contribute to the nation's supply, there is

no mechanism for them to interface with the grid. This means that there are few incentives to improve upon household-size power generators, storage devices (batteries), and Grid-Enabled Vehicles (GEVs), or electric cars. Owners of these technologies would not only have a cleaner, more efficient source of energy or mode of transportation, but by plugging into the grid they could also be providing an energy balancing service. Worldwide markets for all of these products (distributed generation, batteries, and GEVs) are projected to boom in coming years. So in addition to capitalizing on these opportunities ourselves, we have to find a way to encourage investments in these technologies in the US in order to maintain global competitiveness.

The Smart Grid can address or outright solve all of the outage, security, renewable integration, and distributed generation concerns mentioned in the preceding discussion. By improving the speed at which operators can respond to changing conditions, Smart Grid technologies will enable operators to instantly detect ground faults, open the circuits that use the affected line, and reroute power from reserve sources across the country to maintain stability. Theoretically, it is possible to design software that will perform this function with 100% reliability, meaning that there will never be another major power outage. Also this means that a terrorist attack that attempts to push on stressed parts of the grid can be thwarted by the same measures. The reaction speed of the Smart Grid also means that it will be able to handle more intermittent power sources and distributed generation. When a multitude of generators supply output that fluctuates over time, human operators can't keep up with the tasks required to control them. But the Smart Grid will be able to generate

and manage the massive amounts of data needed to integrate these entities into the system.

One more important advantage of the Smart Grid, AMI in particular, is that it will enable real-time communication between LSEs and customers. Today, most power companies send a meter reader to every home or business they serve once a month to record energy usage. AMI will allow a power company to instantaneously measure all of their customers' power consumption. Besides saving the cost of physically reading meters, this will technologically (the economic considerations will be discussed later) enable companies to change the rates they charge customers at different times of the day or under different prevailing market conditions. In this way, the Smart Grid is the technology that makes a discussion of real-time pricing rate structures possible.

There are several obstacles to achieving a Smart Grid nationwide. First, installing the needed hardware across the country without interrupting service is an extremely technically difficult task. One expert likens it to upgrading a steam engine to a diesel engine while the train is moving. Second, the process is projected to cost somewhere between \$100 billion and \$2 trillion nationwide. Some of this investment will come from power companies that will reap the benefits of the Smart Grid, but many of those gains cannot be realized until the whole project is completed, so firms are slow to make the required initial investments. Third, there is a very real concern about how to handle privacy issues because the Smart Grid will generate massive amounts of information about how people consume electricity. Lastly, there is not yet

a common set of standards to define how all of the new components of the grid will connect seamlessly to each other.

Despite these issues, the process is underway. Engineers have designed pilot programs to test ways of rolling out hardware installation [30]. The federal government is providing funds to spur investment by early adopters of Smart Grid technology [31]. Lawmakers are designing legislation to prevent violations of personal privacy. And the National Institute of Standards and Technology (NIST) is developing comprehensive Smart Grid interoperability standards [32]. It is not a foregone conclusion that we're going to complete the Smart Grid transition, but there are a lot of positive indicators showing progress.

As discussed earlier, the energy crisis in the early 70s started people thinking about energy efficiency. Then, as markets began to be deregulated, efficiency became an important competitive advantage for increasing returns on investments. Thus, over the last 40 years, many good ideas for promoting efficiency have emerged. While the Smart Grid will improve transmission performance by its nature, it also promises to be a very powerful tool to strengthen other economic and energy efficiency measures if it is used correctly. The following sections will discuss some of the measures in use today that will benefit from the eventual achievement of a national Smart Grid.

Demand Response

Generators must always be able to supply enough energy to meet the demand for it otherwise the grid will destabilize. Thus they must have the capacity to generate more than enough electricity to supply the grid when demand is at its highest (peak demand) even though most of the time demand is much lower. Over the course of a

day, demand for energy generally peaks at about 1.5 to 2 times the baseload (lowest) demand. Baseload generation facilities operate around the clock, while peaking plants only come online for a couple of hours per day to meet rising demand. To get an idea of how consumption changes during the day, see the example of a daily load profile in MISO in figure 1.

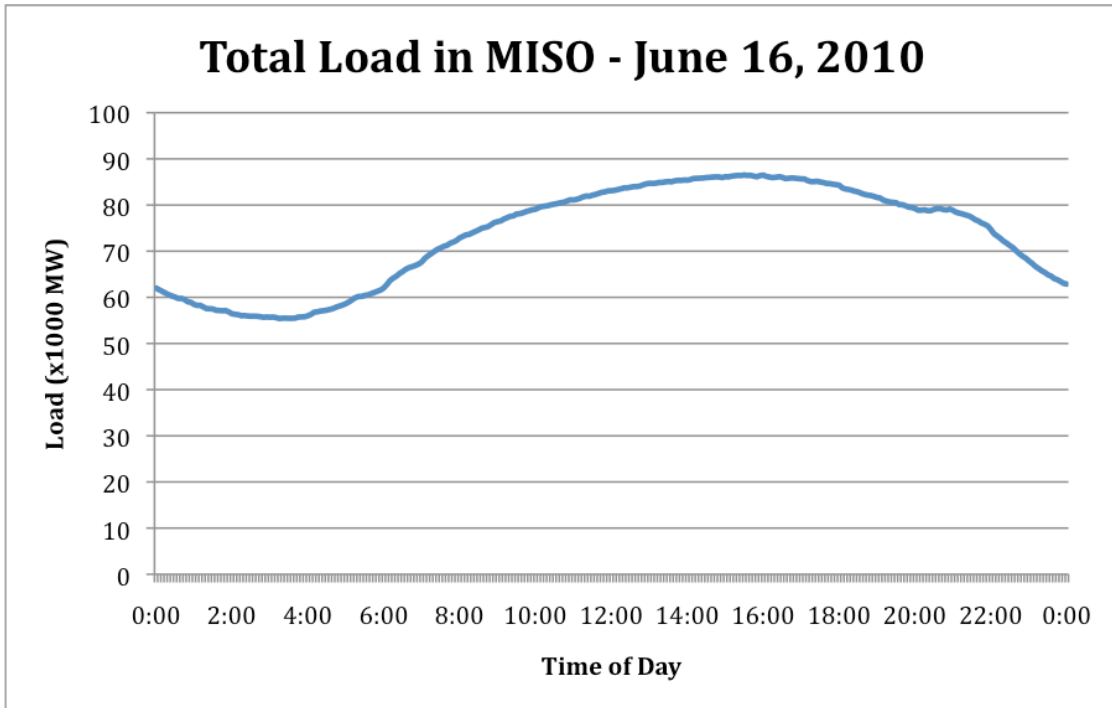


Figure 1. Load Profile in MISO on June 16th, 2010

The result of this phenomenon is that generators in MISO spend billions of dollars constructing peaking plants that aren't used very much. Some peaking plants are used for less than 100 hours per year, in fact roughly 10% of peak demand occurs in less than 1% of the hours in the year [33]. This is economically inefficient because generation facilities only produce revenue when they are online, so the seldom-used peaking plants require much more capital investment per MWh generated than

baseload plants. Thus, the more peakers that are built, the more energy costs on average.

Also because peakers cost more to operate, it means that energy produced at peak demand is more expensive to supply. This is why wholesale electricity costs fluctuate throughout the day. For an example of how the price of energy changes in day, see figure 2, which shows the average real time energy prices in the MISO footprint for the same day as the load profile shown in figure 1.

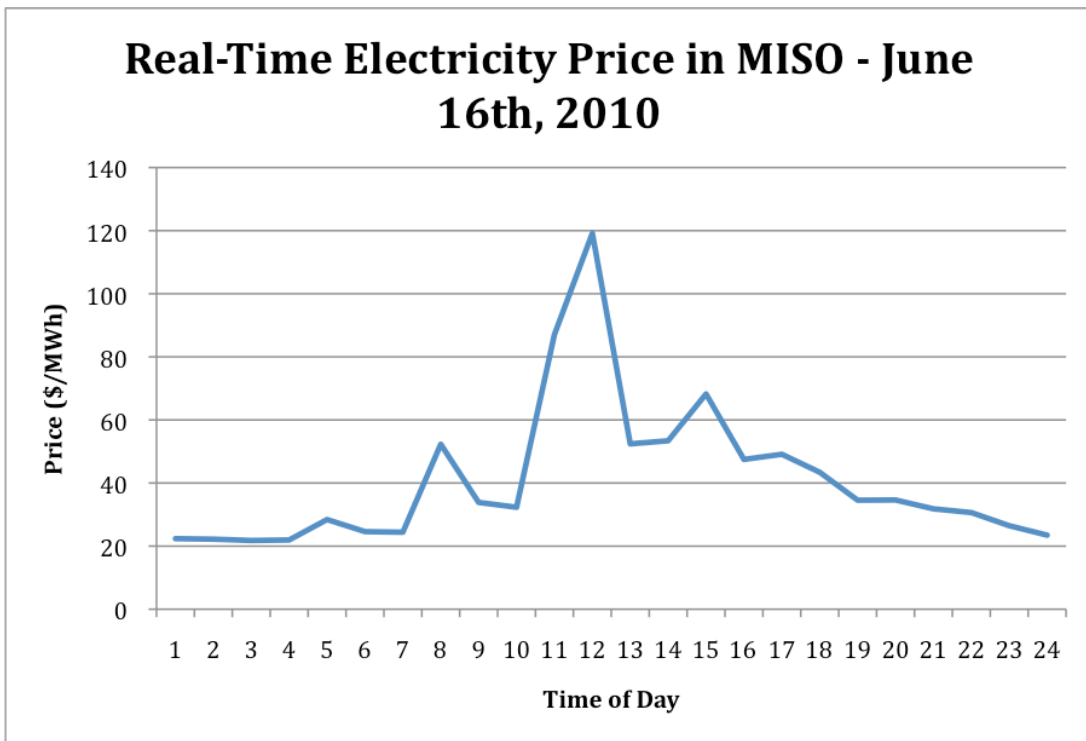


Figure 2. Real-Time Price of Electricity in MISO on June 16th, 2010

If customers were willing to shift their load from peak hours to off peak (even if they still use the same total amount of energy in the day) it would improve economic efficiency in two ways. First, it would immediately shift some consumption from high priced hours to lower priced hours, which reduces the average cost of electricity, saves utilities money, and reduces the rate they have to charge customers.

Second, in the long-run it would save the utility from having to invest as much into expensive peaking plants. The reduced capital investment per MWh consumed would directly improve the utility's bottom line, which would again reduce the rates they have to charge customers. Thus, reduction of peak demand and encouragement of load shifting are major keys to improving efficiency. The problem is that there are few ways to achieve these goals with the regulated retail electricity market we have today.

One type of energy efficiency program that has worked is demand side management (DSM), which is a tool utilities use to initiate a demand response (DR) from their customers. DR programs have been around since the 1970s and the way they work is that customers who choose to participate sign a contract that allows the utility to limit the amount of electricity delivered to them during periods of peak demand or congestion in the wholesale market. This way, instead of having to buy more electricity when it is most expensive, the utility can reduce the demand for it by triggering the DR. Once the congestion is relieved, the DR signal is removed and the customer can return to normal consumption levels. In exchange for allowing the utility to curtail service, the customer gets a rebate on their electricity bill. To ensure that power is always available when it's needed, DR programs are entirely optional and are usually capped at a certain number of hours per year of allowed service reduction [34]. The concept underlying DR is communication, if only for a few hours per year, between the LSE and the end user about the time dependent costs of energy.

Rate Structures

Most consumers of electricity pay for it at a flat rate. That is, every month, the total amount of energy they use is multiplied by a constant rate of charge to calculate their bill. The way an LSE sets the flat rate is to total the cost of the energy they buy on the wholesale market, add their cost of doing business and a reasonable profit, and divide by total consumption (the rate then must be approved by the PUC). Thus, the rate that a consumer pays is the average cost of providing energy to everyone the LSE serves over a long period of time. As discussed earlier, energy prices vary greatly from one region to another and from one time of day to another. So, while a flat rate intuitively makes sense to most consumers, it provides no incentive for them to efficiently distribute their load.

One way to indicate to customers the real costs of their consumption behavior is to change the rate that they pay for energy based on when they use it. If the price signals cause consumers to shift their consumption to periods of lower demand, the overall economic efficiency of the system will improve. But even if LSEs wanted to adopt a different rate structure, there are, as discussed previously, regulatory and technological barriers. Unless AMI is installed at the point of use, there is really no practical way of implementing any non-flat rate structure because there is no way to measure the time at which energy is consumed. Also, since LSEs are regulated by PUCs, they are often required to set a flat rate. Regulation also means utilities are guaranteed a reasonable return on their investments whether they take the risk of innovating a novel rate structure or just stick to the flat one, so there is little economic incentive for LSEs to adopt new structures. Despite these hurdles, different rate

structures have been designed and some of them have been implemented over the years.

Time-Of-Use pricing (TOU) is a rate structure that breaks the day into off-peak (night) and on-peak (daytime) hours. A customer is charged one flat rate for consumption during off-peak hours and a higher rate for on-peak. TOU is an improvement over flat rates because it reflects the fact that energy is usually more expensive to generate during the day than at night, so it will provide an incentive for users to shift their consumption to hours that are usually periods of lower demand. However, on a given day, the difference between peak and off-peak rates is rarely the actual difference between production costs. The crude attempt to pass real costs on to consumers has been shown to improve market efficiency, but it still doesn't reflect the actual condition of the market at the moment electricity is consumed [35]. The Carter administration originally intended for PURPA to include a phasing in of TOU rates across the country, but Congress balked at the associated cost of installing meters and the possibility of angering voters so the measure was dropped. Since that time, various utilities across the country have taken the initiative to implement TOU on their own, but it is still relatively rare.

There have been other rate structures implemented, but they are even less common than TOU. One example is Critical Peak Pricing (CPP), in which peak rates are invoked for only a few days each year. When energy prices are extremely high, the utility will notify customers a day in advance that the CPP rate will be charged, but for the rest of the year prices revert to flat rates. Some large, industrial customers enroll in CPP programs, but it is relatively rare for use with residential customers.

For another rate design, an LSE develops a baseline consumption pattern for each customer based upon how they've used energy in the past. Then they are charged a higher rate if they surpass the baseline and are rewarded with a lower price if they are more efficient. This rate structure makes some sense on paper, but has largely been abandoned due to the difficulty of managing the programs and the possibility of gaming the system. That is, customers that know they will be charged the new rate can artificially bump up their consumption for the period when the baseline is being established and then revert to normal usage once the new rate structure is implemented to benefit from easy price reductions. Thus, gaming the baseline structure can result in a net loss of efficiency, which is, of course, the opposite of the intended effect.

Occasionally, utilities will charge customers on an inclining block rate, where the price of energy goes up as more of it is used. It makes some intuitive sense because the more a customer uses, the more they pay, thus there should be an incentive to become more efficient. However, the block rate applies to each meter, not each individual, so a person who lives alone could use the same amount of energy as a family of 4 and be charged the same rate for it even though they are much less efficient. Consumers recognize this inequity and generally respond negatively to inclining block rates. It has been suggested that more information could be collected about each customer (like the number of people the meter serves) to improve the rate structure, but then it starts to suffer from the same type of problems as the baseline rate structure.

Ultimately, flat rates have always dominated the industry and while TOU enjoys some popularity, other rate structures have achieved only minor success. Most utilities do offer some version of the rate structures outlined here in addition to their DR programs, but there are few customers who enroll in them.

RTP

The most complicated rate structure to implement and the subject of this paper is real-time pricing. All of the rate structures mentioned so far attempt to improve economic and energy efficiency by implementing constraints on the market for the purpose of correcting the observed inefficiencies in consumption behavior. They are reactive adjustments to the framework of the electricity market. The fundamental difference between RTP and other rate structures is that RTP aims to remove constraints from the market, not add them. The goal is to make the market more efficient by making it more transparent. Instead of filtering and altering price signals, RTP will connect producers directly to end consumers, thus allowing transactions to take place under free market conditions.

In theory, RTP is the most economically beneficial and the most energy efficient electricity rate structure possible. The key to RTP is that the customer is affected by the cost of producing energy at the moment they consume it. Vickrey was the first to propose RTP in 1971, but until recently weighing its advantages and disadvantages was a moot point because effectively implementing it was not even possible [36]. With the deployment of Smart Grid technologies underway, a discussion of the effects of RTP is relevant today.

An LSE that uses RTP changes the retail price of electricity constantly (usually every hour, but other time periods are possible) depending on levels of demand and current wholesale costs. A consumer's electric meter (the "smart meter," or AMI discussed in the Smart Grid section) will tell the LSE when energy is being used, and thus how much to charge for it. When the price changes, the LSE sends a signal the other direction to the meter to indicate to the consumer what the new price will be. That way, customers can decide if they derive the most benefit from using electricity now, later, or not at all.

The precise manner in which a consumer receives price signals is an area still open to discussion and ripe for innovation. Likely, different LSEs will opt to use different technologies, but they will probably start with a simple in-home display showing current consumption, current price, and forecasted price of electricity. In one pilot program, a device called a Pricelight was used. The Pricelight is a soft LED that can be mounted in a customer's kitchen or near the thermostat. It changes hue based on the current price of electricity and represents an innovative first attempt to transmit price signals without intruding too heavily into people's lives [37].

A mildly confusing aspect of real-time rates is that several different specific types of rate designs can be referred to as RTP. A pure real-time price would change from one instant to the next and range as high and low as market conditions dictate. This rate design would theoretically squeeze the all possible economic gains out of the market by streamlining its efficiency to be nearly perfect. Even though smart grid devices make a pure real-time price structure technically feasible, consumers do not

yet have (and may never acquire) the capacity to respond to second-by-second continuous price changes.

Another rate design that is easier to manage and still sometimes called RTP is a modified TOU structure. Every day the duration of the on-peak period would change; on high-cost days, peak hours would last longer. Customers would be notified a day in advance as to what hours would be on and off peak. This structure would be slightly superior to TOU in terms of conveying price information, but it is still limited by the fact that customers only see two discrete prices.

The rate design most commonly referenced when talking about RTP is the day-ahead RTP structure. In this design, retail rates are set to reflect the conditions in the wholesale day-ahead market. Thus, when the wholesale market clears, the retail RTP rates for the next day are also published. This structure is popular because it allows consumers to see prices for the full day so they can plan their usage accordingly. One drawback is that consumers are not affected by the wholesale real-time prices, so this structure doesn't achieve complete price transparency. But the same buffer does provide consumers insulation from price volatility. Also, just as it does now, the day-ahead market will process roughly 90% of energy transfers by volume in MISO. Thus, if this particular RTP structure were adopted in MISO, it would affect most market transactions in the region and improve efficiency in the majority of the market.

From a broad view of the industry, introducing real-time prices that don't interact with the real-time wholesale market may seem counterintuitive, but recall that RTP is implemented at the retail level. The goal of RTP is to charge retail consumers

different prices at different times, so even though the prices are calculated a day in advance by the wholesale market, they still constitute real-time price changes for retail customers. For the remainder of this paper, RTP will refer to this specific structure.

Economists like RTP because it provides much more accurate price signals to consumers than any other rate structure. But system operators are wary of RTP because it will change the way demand is forecasted and complicate the job of energy balancing. More importantly, LSEs and regulators are worried that a rate structure asking for more involvement from consumers won't gain public acceptance. However, if these concerns can be addressed, RTP promises to wring real value from the electricity market into the economy.

Costs and Concerns

The first cost of implementing RTP is the infrastructure required to support it. Smart meters cost between \$150 and \$300 per end device based on past regulatory filings from approved smart meter deployment programs [2]. Extrapolating from these figures, the cost of deploying smart meters to all 40 million end users in MISO could be as high as \$10 billion. A review of recent AMI deployment shows that approximately 60% of the cost of the metering technology can be justified by the operational savings it provides [3]. Because smart meters report usage remotely in real-time, they can prevent utilities from having to physically read customers meters once a month, detect outages faster, and allow for remote connection of service, all of which save the utility money. However, in most cases the immediate benefits of smart meters do not outweigh the required investments and the total cost of AMI in MISO

not balanced by operational savings could be as high as \$4 billion. If AMI is to be deployed, the remainder of the utility's costs of deployment will have to be recovered by increasing customer rates or by economic savings the meters can generate by enabling new customer rate structures like RTP.

If smart meters are installed and RTP is adopted at the retail level, economic models show that over time, both utilities and consumers will save money by shifting to more efficient usage patterns. In the long run, savings are significantly more than the cost of the required metering infrastructure [1]. However, in the short-term – before customers are able to significantly adjust their usage patterns- it is possible that the cost of the meters is greater than the efficiency gains they can produce. Therefore, if meters are to be installed, customers will have to pay higher rates in the short-run to offset the costs. In order to offset the infrastructure deployment costs in MISO without increasing customer rates, RTP would have to generate approximately \$4 billion in the short run. Sections 4 through 6 of this paper are devoted to determining whether that mark can be met and discussing how to overcome this hurdle.

A separate issue with RTP is that some individual customers will not realize savings or may even have to pay more for electricity. If a consumer's needs dictate that they must use energy when it is most expensive, RTP will naturally result in a higher energy bill. In early experiments with RTP, a small (<5%) number of enrollees wound up paying higher prices than before [38]. However, if paying the true cost of energy is a great enough burden to cause a business to shut down or an individual to change their consumption behavior, then from an economic point of view the

resources they are using could be more efficiently allocated. This is really the whole point of RTP. Another way of looking at it is that consumers today are forced to subsidize inefficient practices that would become unprofitable under RTP. Still, the possibility of increasing costs to some consumers will likely be met with resistance.

Another concern is that residential consumers may not have the capacity to respond to ever-changing electricity prices. According to a recent study, the average person does not want to have to spend more than 2 hours per year thinking about energy efficiency, so they probably won't significantly shift habits such as when they watch TV or turn on lights [39]. This is a problem because RTP can only improve energy efficiency, and can only generate value, if it actually results in changing consumers' consumption behavior. Economically, the extent to which a customer is able (and willing) to respond to price signals and shift their load is their demand elasticity. A recent study of RTP pilot programs showed that enrolled households are statistically significantly price elastic, but the author of the study is careful to note that his findings may not generalize to wider populations [40]. Even if demand elasticities are small, RTP will still result in efficiency gains, even in the short-run, but the question is whether the gains are big enough to justify the cost.

Companies across the country today are developing "smart appliances" and building controls that can communicate with the electric meter so they know how much electricity costs at all times. People who own smart appliances can program their thermostats, refrigerators, dishwashers, dryers, and water heaters to only turn on when electricity is below a desired price and conserve when it is expensive. Smart appliances can also communicate with each other to take turns consuming when

prices are high. Thus, they will have the ability to accomplish significant load shifting in response to price signals without constant input from homeowners. As more people replace old appliances with smart ones, demand will become more elastic and RTP will have an increasingly beneficial effect on energy efficiency. Unfortunately, the adoption of smart appliances constitutes a chicken-and-egg problem: until RTP rates are available, there is little incentive to purchase smart appliances and until people own smart appliances, the full value of implementing RTP will be difficult to realize.

A long-term physical effect of RTP that raises concern is the possibility of reducing peak capacity too much. If RTP works as intended and reduces peak demand, there will be fewer investments made in peaking plants. While this means that energy will be cheaper and more efficient economically, it is physically possible that at some point there could be more demand for electricity than generators are capable of supplying. If, on a hot summer day, people want to crank their AC up when energy demand is highest, prices will go up, as they're supposed to. But if people continue to consume despite the high costs, there may not be enough capacity to meet the demand, which will cause prices to skyrocket and push the physical grid to the limit. In this scenario, the price of energy should get demand under control and LSEs should be able to predict high levels of demand reasonably far in advance to dial up more supply. But if system operators are not careful to plan for these events, the public blowback could damage the public perception of RTP and the period of high prices could undo the gains RTP can achieve.

A final, and perhaps most important, concern with RTP is how the public will perceive it. Consumers could see RTP as unnecessarily complicated or as an

unwanted intrusion into their lives. Industry leaders recognize that, “Customers disengage quickly when they think they’re being forced into something” [6]. Any sudden changes that customers do not have a say in could damage their relationship with their utility. Additionally, PUCs, which advocate for the public, will not be willing to approve of rate changes that constituents oppose even if LSEs recognize the value. The challenge is to educate consumers about the value of RTP in a way that makes them a part of the process so they are accountable for their energy use, yet don’t feel pressured into adopting an unfamiliar rate structure. To all stakeholders from the utility to the PUC to the consumer, the retail electricity market, including RTP if it is to be adopted, must be responsive and transparent. However well RTP works in economic models, the challenge is to make it work with people.

Benefits

The long-term benefits of implementing RTP are projected to be significant. A well-respected long-run simulation performed by Borenstein in 2005 suggests that the long-term total change in surplus in the market in response to RTP will likely be at least a gain of 5% of current energy costs per year [1]. This finding is reinforced by Alcott in 2009, who studied a pilot RTP program and suggests that savings are closer to 10% of energy costs [40]. Extrapolating from Borenstein’s model and applying the findings to MISO, it is reasonable to expect that if RTP is adopted, the electricity market will conservatively save \$500 million annually (in today’s dollars) in the long run. When compared to the cost of deploying smart meters (a one time cost of roughly \$10 billion) and considering the additional operational savings of smart meters (approximately \$6 billion), the benefits to society clearly outweigh the costs in

the long run. However, these savings are based on projections and could take a decade to materialize, so PUCs are understandably wary of approving deployment costs and corresponding rate increases. Sections 4-6 of this paper turn to evaluating the short-term benefits of RTP to determine whether they alone can justify the expense.

A survey of the few instances where RTP has been offered in the US illustrates the advantages of the structure [39]. First and foremost, RTP does result in a reduced electric bill for most customers. This is because if they shift even a small percentage of their load from the most expensive part of the day to the cheapest, which is usually not difficult, it can result in modest savings that add up over time. The greater a customer's demand elasticity, the more they stand to save from RTP. Second, introducing RTP to customers improves the equity of the energy market. While not a direct economic gain, the fact that charging more to customers who use more expensive resources is inherently fair makes for a good philosophical argument in favor of RTP.

Third, by encouraging customers to shift their load, RTP results in reduced total power demanded at peak hours. For LSEs, this means that they do not have to buy as much electricity on the wholesale market when it is most expensive, which is an obvious benefit for the firm. The savings can then be passed on to all customers, not just those enrolled in RTP. Even if just a few customers on the margin decide to reduce consumption during peak hours, those are the most expensive units of energy that are being conserved and represent the best possible improvements in efficiency.

Notice that because RTP gives operators the ability to choose between producing more energy and reducing demand (by increasing prices), it is similar to the effect that DR programs have. In fact, the first time RTP was used in the 1980s, it was specifically aimed at load shifting, rather than fair or efficient pricing. Some economists suggest that RTP should be thought of as a complex demand response program with two advantages over conventional ones [38]. First, instead of triggering DR on a handful of occasions per year, RTP is continuously causing demand responses every time the price changes. Second, instead of either being on or off, RTP creates an incremental scale on which to value load reductions. On some days when prices are somewhat high, but a current DR signal wouldn't be sent, a slightly increased real-time price can still cause small load reductions.

Empirical evidence of the effects of RTP comes from very few programs with very few participants, most of which are large (>1MW) industrial consumers of electricity. This is because the cost of administering an RTP program in the past has meant that only those customers with the capability of shifting a lot of consumption could really benefit. Costs are coming down and it will soon be possible to offer RTP rate structures to more and smaller customers. If enough customers enroll, RTP promises to offer system-wide benefits in addition those just mentioned.

The first of these benefits is that RTP is projected to have the effect of dampening price volatility in the wholesale market, which will improve economic efficiency on that level. This is because, unlike today, demand will actually be a function of price. Under a flat rate, consumers are not aware of changes in energy costs. Since energy prices are decoupled from demand, they only reflect changes in

the cost of supplying it. Even if consumers' elasticity of demand is small, any link between price and demand will reduce the volatility we see today.

Another benefit of more customers paying RTP rates is an aggregated effect of authentic price signals. Over time, LSEs will develop accurate models of usage patterns as a function of the retail price of energy. In fact, with the appropriate models, LSEs should be able to forecast demand under RTP with the same accuracy as they do under the flat rate now [41]. When they can reasonably predict how their customers will respond to fluctuations in retail prices, they can build an accurate demand curve to submit to MISO. This will result in more efficient wholesale prices, which then affect the real-time retail prices. The process creates an intricate feedback loop that serves to continually set prices at their most efficient levels. This is how other commodity markets function naturally, but the instantaneous nature of energy transmission requires careful market design (including the implementation of RTP) to achieve this process in the electricity market.

The more customers that are aware of real-time prices and make their consumption choices accordingly, the closer energy prices in the entire market will reflect the aggregate marginal costs and benefits in the region. Theoretically if everybody were charged RTP rates, the price of energy would always be equal to the marginal cost of providing it and the marginal benefit of consuming it at the place and time of consumption. This means that RTP has the potential to ensure that the energy market is generating the most value for society that it possibly can.

Recent RTP Research

Other authors have performed studies similar to mine in other regions and their findings informed my work. Already mentioned, Borenstein and Alcott published papers that I draw on for comparisons. Besides thorough analysis to calculate the value of RTP in the long-run, they also provided examples of market models from which to draw on to build my own.

Faruqui et al. published a recent study that estimated the effectiveness of RTP as a DR tool in MISO [37]. In order to predict how RTP acts as a DR program, much of the same information must be collected as in an economic study. Thus, the findings of his study can be extrapolated to calculate the surpluses that can be achieved by RTP and I can compare my findings to Faruqui's estimates as a checksum measure.

In the most recent paper I reviewed, Alcott offers the most up-to-date study of an operating residential RTP program [38]. In his paper, he ex-post facto defines consumers' demand elasticity and calculates their total savings. He is very careful to note that these values may not generalize to other settings like my study, but it does provide useful real-world data to compare to other sources as I design the parameters of my model. Additionally, this study suggests a different way of thinking about RTP. Alcott found that households enrolled in RTP are statistically significantly price elastic during high-priced (peak) hours, but that they did not increase consumption during off-peak hours (at lower real-time prices). This finding is new to the study of RTP; previously it has been assumed that demand elasticity would be the same in high- and low-priced hours. In the analysis section of this paper, I will briefly discuss my results as viewed from Alcott's point-of-view, but because this perspective is

new, I will base all of my conclusions and recommendations on the normal understanding of the relationship between price and demand.

The model closest to the one I intend to use was designed by Spees to evaluate RTP in PJM [42]. For the production side of my model, I will create a supply curve by reviewing market data from MISO over the last year in the same way Spees did for PJM. On the demand side, my model differs from Spees' model in that instead of performing a load-shifting algorithm for each day, I calculated a unique price and level of consumption for each hour of the year. The final step of model is again similar to Spees' when I calculate eliminated economic deadweight loss by integrating net benefit over the difference between flat rate and RTP for each hour of the year. The next section describes my model in detail.

Section 3 Short- Run Model of RTP in MISO

My project consists of modeling the short-term effects of introducing RTP to the electricity market. The objective of my simulation was to calculate the total deadweight losses over one year in MISO due to opaque retail price signaling. I did so by designing a model of the current market using a year of price and load information. Then I altered the model to include RTP and ran a counterfactual simulation to find what prices and quantities would have obtained under real-time rates. By comparing the two models, I can show how much deadweight loss exists under flat rates that can be recouped by RTP. Eliminating this loss is the theoretical maximum possible value of RTP over the year of the study. After I finishing this task, I discuss real-world factors that affect the actual value of RTP and how to adjust the

projected benefit of changing rate structures accordingly. I also examine the policy considerations of adopting RTP.

Deadweight loss occurs in a market when producers and consumers are not able to define the equilibrium quantity and price of the product such that it maximizes the total value to both parties when transactions take place. Often, deadweight loss is the result of government-imposed taxes, subsidies, or price controls. In those cases, the loss is ideally accompanied by revenue to government to provide valuable public goods or else the loss is deemed an acceptable sacrifice to address an important issue external to the market. In the case of electricity, the normal operation of the free market is short circuited by the fact that consumers are charged a flat rate for consumption regardless of the cost to suppliers. If the market were to operate freely, the price of electricity would increase during hours of high demand and decrease as demand falls, but it is forced to remain constant. Thus, the flat rate acts as an artificial price control, but has no corresponding public benefit, only purely wasted deadweight loss. This loss is borne by society as a whole and could be thought of as all electricity consumers forcibly subsidizing those who use energy inefficiently. Recouping this loss represents the short-term value that can be realized by RTP because it is capable of allowing the market to operate freely.

For my model, I first specify the exact rate structure that I used when I refer to RTP. I modeled the day-ahead RTP rate. This means that each hour of the year has a unique price at which consumption is charged. In the model, this means that the retail real-time price is set to equal the wholesale day-ahead price for each hour. If this

structure were used in the real world, every evening, when wholesale day-ahead LMPs are posted for MISO, the following day's retail rates would also be published by the LSE. Consumers (and, eventually, their automated smart devices) could see what prices will be charged over the next day and decide how to schedule electricity use in the most efficient and cost effective way. I chose this particular rate structure because in my conversations with industry experts, they indicated that this it would be the most likely one to be adopted. While RTP rate designs have not yet been settled on, and many different ones could actually be used at the same time, this particular structure seems to have the inside track in many experts' estimation [43, 44, 45].

To design the market model, my data come from a full year of cleared price and energy information available publicly on MISO's website. I compiled hourly cleared supply, load, and LMP data in the day-ahead wholesale market for dates between July 16th, 2009 and July 15th, 2010. Because retail rates in the model are determined by day-ahead wholesale prices in MISO, the effect of RTP at the wholesale level is limited to the day-ahead market. The real-time wholesale market will still function as it does currently to take up the slack between day-ahead transactions and actual load conditions, but it will neither directly affect nor be affected by real-time retail rates.

My analysis relies upon some important assumptions concerning the nature of the market. First, because I only examine short-term effects, I assume that there is no significant market entry or exit in the model in response to RTP. This means that once I have defined supply and demand curves for the observed conditions, they do not change in the model. As discussed in the previous section, RTP promises to deliver

long-term efficiency gains like reducing the need for building expensive peaking plants and increasing consumer demand elasticity over time, but these effects are not included in the model.

The second assumption I make is that the average retail flat rate paid by all customers in the original scenario is the same across the region for the whole year. To calculate this rate, I multiplied the wholesale price by the cleared supply at every hour of the year and summed the annual total to represent the total wholesale cost of electricity for the year. I then divided by the total cleared load in the year to get \$31.56/MWh, which is the flat rate that would have to be paid by consumers to set revenue to LSEs such that they break even. This method does not take into account the real-time market, outages, binding constraints, utility profits, the fact that rates change by geographic region, or other factors in calculating retail consumer rates. This model only includes the component of prices determined by the day-ahead market and the changes to that component as a result of RTP. However, as stated earlier, the effects of the chosen rate structure are constrained to the day-ahead market, so this assumption is a fair reduction of complexity without significant loss of information important to the model.

The third assumption I make is that changes in consumer surplus and producer surplus as a result of RTP average out such that neither is less than in the original scenario. Thus, I abstract from wealth transfers and concentrate only on the net gain from RTP to the market as a whole. It is possible that RTP could cause wealth transfers from retail suppliers to consumers or vice-versa, but I assume that if that is

the case, an average constant tariff or rebate will be applied so that the transfer is negated without a significant change in the overall effect of RTP.

The fourth assumption is that demand in the original scenario is perfectly price inelastic. This is reasonable because the vast majority of consumers do not see price fluctuations, thus it is not possible for them to change their demand in response to change in price. Further, since demand is insulated from price, I assume that the observed relationship between the price of electricity and the quantity supplied is identically the supply curve for the region.

$$P_j(Q_S) = \alpha_2 \cdot Q_S^2 + \alpha_1 \cdot Q_S + \alpha_0 + \delta_j \quad (1)$$

Equation 1 shows the general form of the supply curves where P is the price of electricity in dollars per megawatt-hour (\$/MWh), Q_S is the quantity of electricity supplied in gigawatt-hours (GWh), and δ is a constant allowed to vary each day of the simulation. The j variable is an index indicating the day for which the equation holds. To define these supply curves, I performed a regression on the wholesale cleared price and quantity data. Because conditions change over time, I calculated different coefficients α_2 , α_1 , and α_0 for each month of the simulation and a unique constant term δ for each day. One example is equation 2 that describes the supply curve for June 16th 2010. For monthly coefficients used in the model, see table 4 in the appendix. For daily constant values of δ over the study, see table 5 in the appendix.

$$P(Q_S) = 0.0289Q_S^2 - 2.5084Q_S + 66.914 \quad (2)$$

I chose the second-degree polynomial structure to define the supply curve after attempting several other options. I settled on this one because it produced the highest correlation between price and supply while remaining relatively simple. For example, the coefficient of determination (adjusted R-squared) of the regression that produces the daily supply curves for the month of June (of which equation 2 is one) is 0.965, meaning that the variation in quantity supplied explains 96.5% of the variation in price. Also, when this model is subjected to a significance test, the F-statistic is 647 with a p-value $\ll 0.001$, meaning that it is highly significant. I ran a regression for each month to derive the supply curves, for which the R-squared values can be found in the appendix. The average adjusted R-squared (weighted by number of days per month) for the regressions is 0.897, suggesting that the wholesale price can be reliably predicted by the quantity cleared and that the assumption that the observed relationship between price and quantity constitutes the market supply curve is valid. To visualize the supply curve, figure 3 shows a plot of equation 2 superimposed over observed price and quantity data on June 16th.

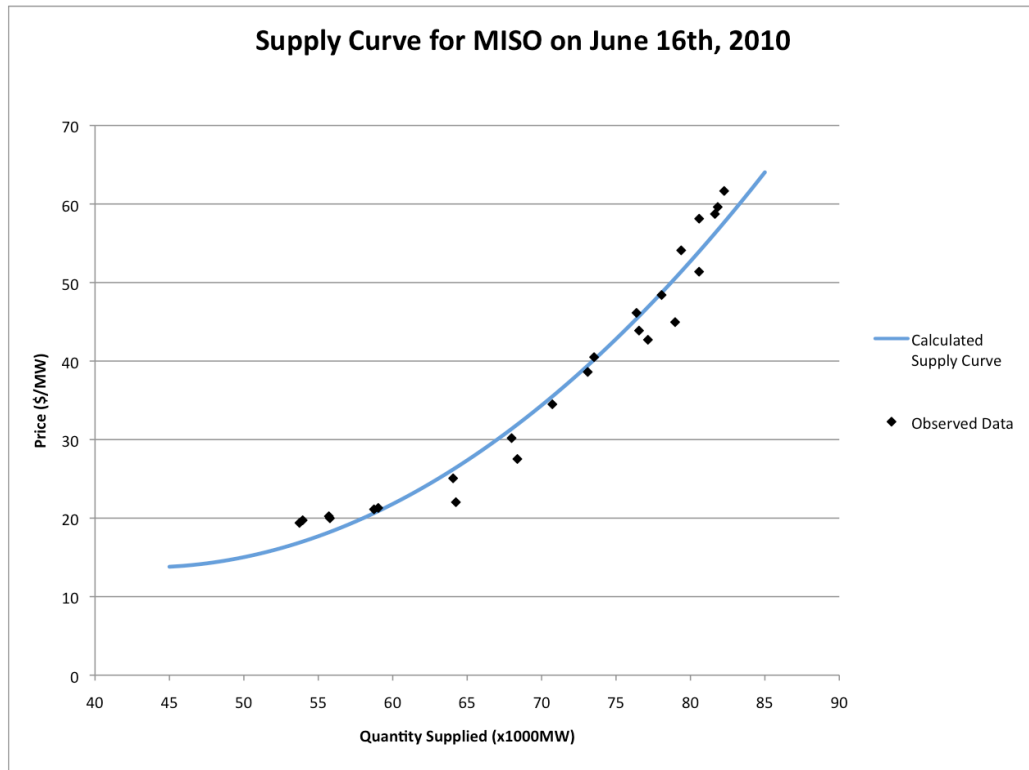


Figure 3. Modeled Supply Curve on June 16th, 2010

Once the supply curves are defined, I turn to the demand side of the equation. In my model, each hour of the year has a unique demand curve. As stated earlier, in the original scenario each curve is a perfectly inelastic line where the quantity demanded is equal to the observed consumption in the given hour. By introducing RTP to the model, the demand curve changes to exhibit price elasticity. In going from the original scenario to the model, the one point on the demand curve that stays the same is where the observed quantity demanded intersects the retail flat rate price of \$31.65/MWh. The modeled demand curve pivots around that point until the shape of the line reflects the elasticity chosen for the model. Figure 4 shows the demand curve for the hour ending at 4PM on June 16th, both in the original market and in the RTP

model. In these graphs, Q_0 is the original quantity demanded, P_R is the original flat-rate retail price, and P_W is the original wholesale price at the given hour.

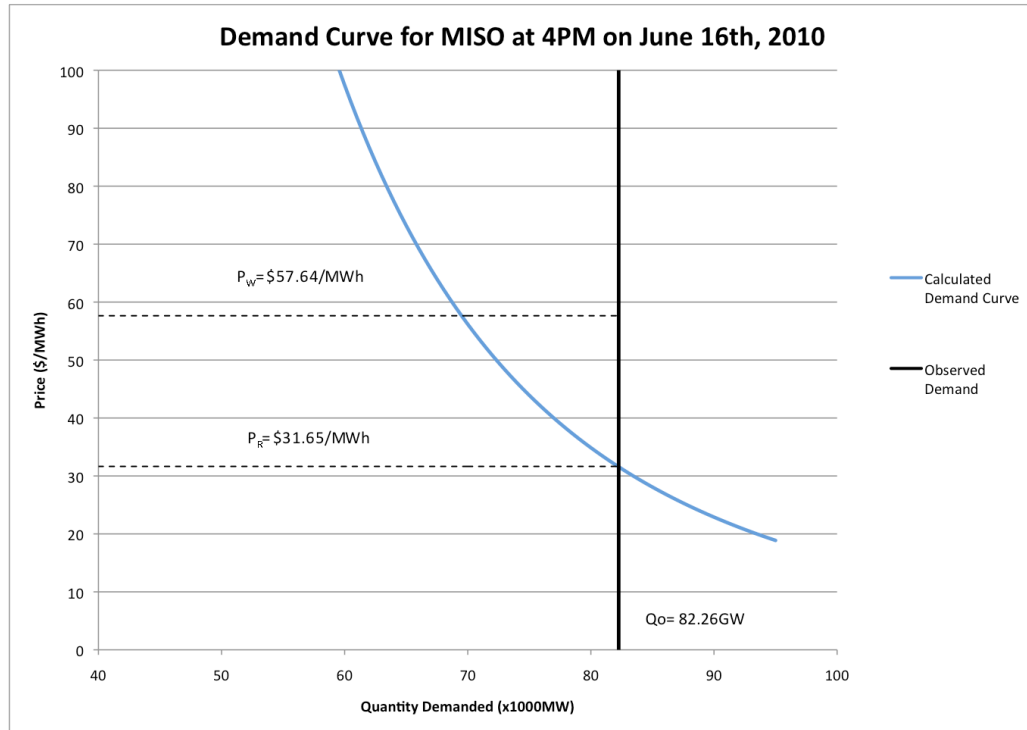


Figure 4. Modeled Demand Curve at 4PM on June 16th, 2010

The shape of the demand curve in the model is determined by consumer demand elasticity, for which a value was chosen by reviewing research on the subject. Because most consumers today are not exposed to changing prices, estimates of how they will react to them amount to very well thought out educated guesses. Factors that influence a consumer's demand elasticity could include income, size of load, weather, types of appliances they own and the current price of electricity. A comprehensive review of 56 studies between 1980 and 2003 by King and Chatterjee resulted in a median estimate of -0.28 as a value for consumer price elasticity of demand for electricity (meaning that for a 10% increase in price, consumers will reduce

consumption by 2.8%) [46]. Their analysis suggests that at the 95% confidence interval, elasticities fall between high and low values of -0.34 and -0.23.

The total value to society from RTP depends heavily upon the assumed figure for consumer price elasticity. Other studies I reviewed confirm that -0.28 is within a relatively reliable range of estimates of elasticity, but the authors are careful to point out that their findings may not generalize to wider populations and that ultimately until more consumers are exposed to changing prices, there is no possible way to precisely evaluate their elasticity. Also, other, more obscure estimates of consumer demand elasticity range as from as low as -0.025 to as high as -0.5 in the short run. I claim no superior technique for divining unknowable parameters, so for my analysis, I started with the elasticity suggested by King (-0.28) and then ran the simulation two additional times using values of -0.2 and -0.35 (a slightly larger range than King's 95% confidence interval suggests is likely). The results show the effects that could be seen over a range of possible elasticities. This technique is common to studies similar to mine, such as those mentioned in the previous section. As an aside, the earlier discussion of smart appliances and thermostats translates into economic terms to mean that the increased benefit of RTP in the long run is due to the fact that over time consumers will respond to RTP by increasing their demand elasticities. Reasoned estimates of possible demand elasticities after consumers are able to adjust their appliance choices in response to RTP range as high as -0.9 or even -1.2 at the high end [46].

$$P_i(Q_D) = B_i Q_D^{1/E} \tag{3}$$

Equation 3 shows the general form of a demand curve in the model where P is the price of electricity, Q_D is the quantity demanded, E is the consumer price elasticity of demand, and B is a constant. The variable i is an index indicating in which hour the curve describes demand. Each hour has a unique B determined by the observed price and quantity demanded. For the first run of the simulation (using -0.28 for elasticity), equation 4 describes demand for the hour ending at 4PM on June 16th (shown graphically as the calculated demand curve in Figure 4).

$$P(Q_D) = 2.18366^{10^8} \cdot Q_D^{1/-0.28} \quad (4)$$

In the model, the retail rate is set to equal the wholesale price at each hour. Because customers will respond to the new price by changing their quantity demanded, the model predicts a new quantity and price equilibrium point for each hour of the year. To determine this point, I calculated where the daily supply curve intersects the defined hourly demand curve. Figure 5 shows the price and quantity predicted by the model in the example hour ending at 4PM on June 16th. The equilibrium point is determined by the intersection of equations 2 and 4. P' and Q' are the new equilibrium price and quantity, respectively. This equilibrium price is the modeled RTP retail rate charged to customers.

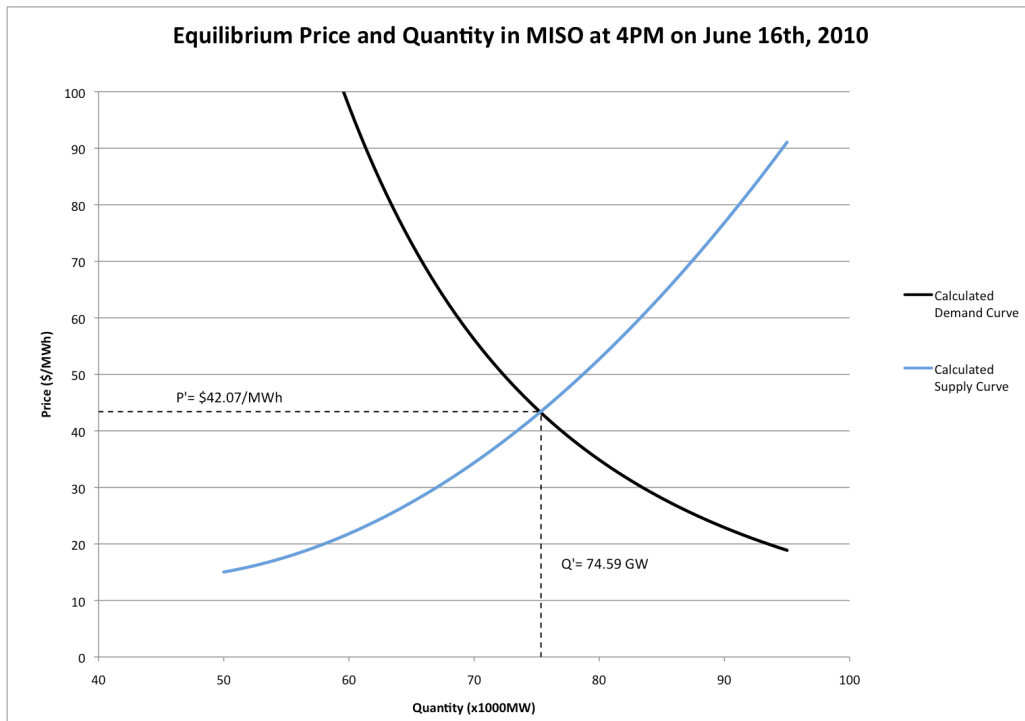


Figure 5. Modeled Equilibrium Point at 4PM on June 16th, 2010

After the new equilibrium point is determined, I compared the model to the observed market to calculate the deadweight loss caused by flat rates in the given hour. Figure 6 shows a visual representation of the comparison. Graphically, the area carved out between the supply and demand curves and between the original quantity and the new equilibrium quantity is the deadweight loss. Recall that Q_0 is the original quantity demanded, P_R is the original flat-rate retail price, P_W is the original wholesale price, and Q' and P' are the modeled equilibrium quantity and price.

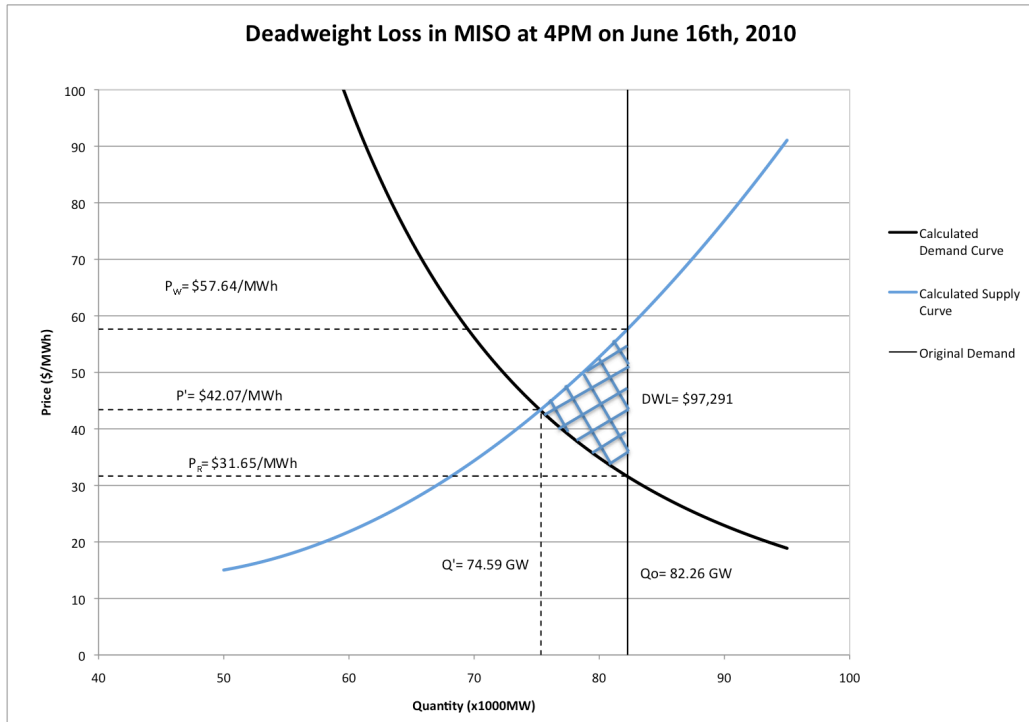


Figure 6. Modeled Deadweight Loss at 4PM on June 16th, 2010

Mathematically, the deadweight loss can be calculated by integrating to find the area under the supply curve between Q' and Q_0 and subtracting the area under the demand curve over the same interval. Equation 5 defines this operation generally.

$$DWL_i = \int_{Q_0}^{Q'} P_j(Q_S) dQ - \int_{Q_0}^{Q'} P_i(Q_D) dQ \quad (5)$$

$$DWL = \int_{74.60}^{82.26} (0.0289Q^2 - 2.5084Q + 66.914) dQ - \int_{74.60}^{82.26} (2.18366 \cdot 10^8 \cdot Q^{1/-28}) dQ \quad (6)$$

Equation 6 shows the calculation of deadweight loss for the example hour. In this equation, the unit of DWL is GW x dollars per MWh, or \$1000/hour. Solving equation 6 produces $DWL = 379.995 - 282.704 = 97.291$, which means that for the

hour ending at 4PM on June 16th, 2010, the deadweight loss in the MISO system due to opaque retail pricing was \$97,291. For the calculated deadweight loss of any of the individual hours over the year of the study, see table 6 in the appendix.

In a low priced hour, the model functions exactly the opposite as a high priced hour like the example I have used so far. In a low priced hour, the original wholesale price will be below the retail rate. Thus, the modeled equilibrium point will be at a higher quantity and lower real-time retail rate. There is still deadweight loss in a low priced hour and it can be found by subtracting the area under the supply curve from the area under the demand curve over the interval from Q_0 to Q' . Equation 7 shows how the model changes in general for a low priced hour. Figure 7 shows an example low priced hour that occurred 12 hours before the example used so far at 4AM on June 16th, 2010.

$$DWL_i = \int_{Q'}^{Q_0} P_i(Q_D) dQ - \int_{Q'}^{Q_0} P_j(Q_S) dQ \quad (7)$$

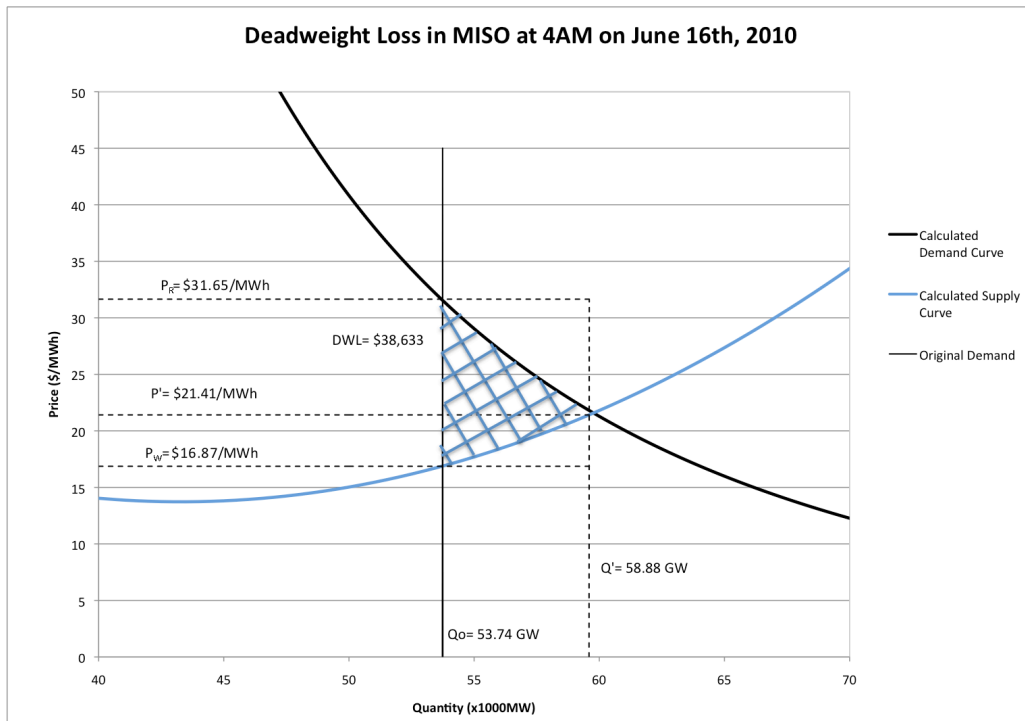


Figure 7. Modeled Deadweight Loss at 4AM on June 16th, 2010

The final task to complete the model is to sum the deadweight losses from each hour of the year. The cumulative total is the value that is lost to society under a flat rate compared to RTP. The result of the calculation indicates that \$179.9 million was lost over one year in MISO to inefficiencies that could be corrected by RTP. When the assumed demand elasticity is changed to -0.2 , the deadweight loss drops to \$147.4 million. At an elasticity of -0.35 , deadweight loss is \$202.8 million.

Section 4 Analysis of Findings

The model suggests that if RTP were adopted in the MISO footprint over the last year, approximately \$180 million in deadweight losses could have been prevented. These inefficiencies represent slightly more than 1% of the \$17.6 billion in total

cleared bids in the day-ahead market. Also as a result of RTP, the average cost of retail electricity would have dropped from \$31.65/MWh to \$29.86/MWh, a 6% reduction in per unit cost. According to the model, the lower prices would have induced an increase in total consumption from 557.1 terawatt-hours to 563.9TWh, or a 1.2% rise, for the year. Finally, RTP would have caused a reduction in demand from 99.1GW to 85.2GW, or by 14%, at the highest peak hour of the year. This last statistic is not important for the short-term analysis of the model, but it does serve as a conceptual illustration of the degree to which RTP will allow reductions in future peak capacity investments, which is one of the keys to the potential for long-term efficiency gains. Table 2 summarizes the findings of the model.

Demand elasticity	-.20	-.28	-.35
Recovered deadweight loss (\$)	147.4 million	179.9 million	202.8 million
DWL compared to total energy costs	0.84%	1.02%	1.15%
Modeled average retail price (\$/MWh)	29.90	29.86	29.88
Average reduction in retail price	5.9%	6.0%	6.0%
Total predicted consumption (TWh)	561.9	563.9	565.4
Change in consumption	+0.9%	+1.2%	+1.5%
Highest peak demand reduction (GW)	12.4	14.2	15.4
Highest peak reduction (%)	12.5%	14.3%	15.5%

Table 2. Summary of Important Findings.

It should be noted that the findings of the model represent a first-order approximation of the value of RTP in the short-run. There are far too many variables

that could affect how RTP operates in the real world to allow for an all-inclusive calculation of its value to society. The results are useful and informative, but by no means conclusive.

An example of a possible alternative way of interpreting the data follows from Alcott's (2010) recent suggestion that real-time pricing may not result in increased demand at lower-priced hours. That is, when the new equilibrium price (and thus RTP retail rate) predicted by the model is higher than the original flat rate, consumers will respond by reducing their demand according to the defined demand curve. However, when the new equilibrium price is lower than the flat rate, demand will not change. Alcott suggests that if this is the case, RTP acts like a demand response tool and increases energy conservation, rather than shifting significant load to low-priced hours. To accommodate this perspective, I ran the simulations an additional time, but did not allow demand to change in low-priced hours. It should be noted that this technique is not modeling a prescribed price floor. It is still allowing prices to be set by the market, but reflects a specific prediction of how consumers will choose to react to RTP.

Under this interpretation, the deadweight loss recovered by RTP is less than the amount predicted above, but total demand is reduced, rather than increased. Table 3 shows how key predictions of the model change after incorporating Alcott's theory.

Demand elasticity	-.20	-.28	-.35
Recovered deadweight loss (\$)	63.6 million	73.0 million	78.9 million
DWL compared to total energy costs	0.36%	0.42%	0.45%
Modeled average retail price (\$/MWh)	28.77	28.40	28.17
Average reduction in retail price	9.1%	10.3%	11.0%
Total predicted consumption (TWh)	549.4	548.2	547.3
Change in consumption	-1.4%	-1.6%	-1.8%
Highest peak demand reduction (GW)	12.4	13.9	15.4
Highest peak reduction (%)	12.5%	14.3%	15.5%

Table 3. Alternative Interpretation of Findings.

Alcott’s perspective is new to the field and has yet to be verified by further study, so I use the findings in Table 2 for my analysis and conclusions. Table 3 is meant as a reminder that the precise effects of RTP are difficult to predict and that utility managers, regulators, policymakers and consumers should remain flexible in their understanding of the value of RTP as more information becomes available.

Section 5 Conclusions

The first point that the findings of the previous section illustrate is that there are significant inefficiencies in the regional electricity market. The economy of the MISO region and the people who live there absorbed 180 million dollars worth of deadweight loss over one year due to economic inefficiencies. This loss could be

prevented in the future by improving the transparency of price signals in the retail market, which can be best accomplished by adopting an RTP rate structure.

However, the other major finding of this study is that the cost of deploying the infrastructure required to support RTP in MISO is greater than the benefits it generates in the short-run. This fact coupled with the possibility of disrupting consumers' lifestyles raise the question in some peoples' minds of whether the endeavor is worth it.

As discussed earlier, the long-term economic benefits of RTP in MISO are conservatively estimated to be \$500 million annually in perpetuity, which would easily justify the approximately \$4 billion one-time deployment cost of AMI remaining after accounting for utilities' savings in operational costs. These data suggest that if producers, utilities, and consumers interacted in a completely free market, more dynamic retail pricing of electricity would emerge as an effective long-term strategy for generating value even if the costs outweigh the benefits in the short run. However, the retail electricity market is, and will remain for the foreseeable future, a highly regulated industry. This means that to implement RTP and recapture deadweight losses, several additional hurdles must be cleared besides a long-term cost benefit analysis.

First, in my discussions with regulators, system operators, and utility managers, they all basically agree that if RTP is to be adopted, the process has to start with a proposal from the utility. Phylis Reha, a commissioner on the Minnesota PUC, Richard Doying, the vice-president of operations at MISO, and Betsy Engelking, a

resource manager at Xcel, the largest utility in the MISO region all expressed general support for the idea of more efficient electricity rate structures. Further, they agreed that regulators and system operators will not be pushing those structures and that utilities themselves will have to spearhead the effort [43, 44, 45]. That means that the incentives in the market have to be set such that utilities reap some of the value that RTP generates. If utility profits are regulated such that they do not earn additional profits from pioneering a new rate structure (or incur penalties for lack of action), they won't bother.

Second, consumers have to be convinced that it's in their interest to learn how RTP works and can save them money in the long run. Again, this requires carefully designing the market so that consumers enjoy the majority of the benefits of RTP. Also, this means that educational programs and informational materials have to be published and paid for, which requires further upfront investment.

More than just understanding RTP, consumers (and taxpayers) have to support it. Currying public favor is very important because the PUC's mission is to advocate for the public interest, not explicitly to improve economic efficiency. If regulators are to approve RTP, they must feel that those who will be affected by it are in favor of it and will benefit from it. For example, in June 2010, the Maryland Public Service Commission found that a Baltimore Gas and Electric proposal to begin installing 1.2 million smart meters unduly forced their customers to "take significant financial and technological risks and adapt to categorical changes in rate design, all in exchange for savings that are largely indirect, highly contingent and a long way off" [47]. The

ruling went on to express support for the concept of improved efficiencies, but demanded that utilities must show stronger justification for AMI deployment and the associated short-term costs.

All of these hurdles cast the conversation about RTP in a slightly different light than a solely economic discussion does. When taken together, it's clear that the need for setting market incentives, distributing educational material, winning public approval, and adjusting regulatory objectives defines the adoption of RTP as a policy issue. Therefore, I devote the remainder of this paper to examining some possible policy strategies for enabling RTP and unlocking its potential for streamlining the electricity market.

Section 6 Policy Considerations

As the preceding discussion concluded, the adoption of RTP could deliver significant value to the MISO region, but the short term hurdles that must be overcome to achieve that value will require changes to public policy. Without performing a rigorous policy analysis, I discuss surface-level considerations and trade-offs, including possible unintended consequences, of several policy-oriented strategies to promote RTP. The criteria to keep in mind when evaluating each option are: the degree to which it allows RTP to penetrate the market, whether it will gain reasonable public acceptance, the cost to implement the policy, and how those costs are distributed.

AMI deployment is a prerequisite for RTP adoption, so the first category of policy options includes those that directly speed the installation of smart meters. The most straightforward way to accomplish this is to enact laws encouraging or requiring utilities to install new metering technology. For example, in 2007 the Texas legislature passed a bill advocating that, “advanced meter data networks be deployed as rapidly as possible” [48]. As a result of the measure, Texas leads the country today in AMI installation. The cost of the meters is paid for by adding a monthly surcharge of \$2-3 on each electric customer’s account, which is easily approved by the state PUC because of the clear legislative objectives [49]. Thus, the short-term cost of the measure is borne by consumers with the expectation that those same people will stand to benefit as long-term gains, which come from the ability to adopt dynamic rate structures, are realized.

Another policy designed to speed AMI deployment is to establish tax breaks or subsidies for utilities that choose to make the upfront investment. An example of this type of policy is a provision of the federal American Reinvestment and Recovery Act (ARRA) of 2009 that allocates \$3.4 billion in matching funds for smart grid initiatives, including AMI installation [31]. This strategy again directly achieves the goal of speeding AMI deployment, but this time puts some of the burden of paying for it on taxpayers. The justification behind ARRA spending public money to deploy smart meters is that the projects will create jobs in a recession, promote energy independence, reduce carbon emissions, and improve national security, all of which are nominally public benefits.

A third program to directly incentivize AMI deployment could be designed to target those consumers who benefit the most in terms of efficiency to be the first to receive incentives for installing smart meters. As in many other business and policy settings, the Pareto principle (or 80-20 rule of thumb) is likely to apply to RTP. That is, a large percentage of the benefits of RTP will very likely come from a smaller percentage of RTP users. Thus targeting those high-value consumers and utilities as early adopters could do the best job of jump-starting the nascent niche economy and rendering government incentives unnecessary sooner than other approaches. The drawback of this plan is that it could be difficult or controversial to identify those customers that would benefit the most and target them using policy tools. However, as utility managers and policymakers work to promote efficiency, it will be important to keep in mind that decisions to enable a targeted deployment -as a strategy in itself or in conjunction with other tools- are very likely to extract the greatest possible value from RTP.

A final possible strategy for directly speeding AMI deployment would be for legislatures to simply mandate it. It is theoretically possible to adjust building codes to force homeowners to purchase smart meters or enact statutes requiring that utilities charge their customers using an RTP rate structure. However, there is little political will to pass such a measure because it constitutes a risky public relations proposition. Further, this type of policy has a high risk of committing to the wrong technology or an inefficient deployment strategy without any economic incentives to correct for such missteps.

Another possible unintended consequence of any of the approaches discussed so far might be over-incentivizing AMI investments. If the policies are not designed properly, state and local governments could be subsidizing AMI deployment long after government involvement ceases to have a net positive effect on the regional economy. At some point, RTP-related investments by both utilities and consumers will become self-sustaining and subsidies will no longer be needed. Although policies should be designed to give utilities and customers a stable environment in which to make investment decisions, that stability should be balanced with the understanding that eventually policy incentives for AMI deployment should be phased out.

In an entirely different category of policy measures to promote RTP are those that do so indirectly. For example, one of the advantages of AMI deployment is its ability to incorporate more renewable energy sources into the regional supply. Thus, states that enact renewable energy portfolio standards are indirectly incentivizing the deployment of AMI, which enables the adoption of RTP.

Another similar indirect influence on RTP comes from states that have enacted laws aiming to improve energy efficiency. Efficiency standards require that utilities find ways of squeezing more benefit from each kilowatt-hour they sell. Therefore, to the extent that RTP can help accomplish this, efficiency standards are an effective way to promote the rate structure.

The last policy to promote RTP is the possibility of introducing a price on carbon emissions. Such a measure would increase the cost of using electricity and put a premium on efficiency. Thus, the cost of deploying meters would be more easily

offset by their ability to give consumers more control over their energy usage and avoid paying for more expensive energy (while also reducing their carbon footprint). Attempts to place prices on carbon by state legislatures have never been successful, so such a measure depends upon action at the federal level. However, while comprehensive energy policy reforms, including carbon pricing, may have been closer to reality than ever before in the summer of 2010, the political pendulum appears to be swinging the other way, making a carbon price unlikely in the foreseeable future.

Naturally, policies that indirectly promote RTP result in a slower pace of deployment than direct policies. However, the advantage of indirect measures is that they are designed to promote public values like energy efficiency or reductions in carbon emissions. RTP then has a chance to prove itself capable of achieving the desired public good, but if someone innovates a better way of accomplishing the goal, the industry is not committed to a specific, inferior strategy or technology.

Following along these lines, further research and effort should delve deeper into the complex ramifications of each of the broad policy options outlined above. Specifically, intensive policy and stakeholder analyses should be done to evaluate the projected effectiveness of these policies, flesh out more detailed strategies, and unearth any further possible unintended consequences not already mentioned.

For now, models show that RTP is one of the most effective potential tools for achieving economic and energy efficiency in the electricity market. As pressure builds to promote these values even more, choosing the best policy options to

advance RTP will become more important. A careful reading of the history of the energy market reveals some insights to guide policymakers who design those options.

First, a lesson learned from the PURPA era is, to the extent possible, public policies should not try to replicate the effects of a free market. Instead, they should set the proper incentives on the edges of the market and allow free operation within it.

Second, when designing a policy to promote RTP, it should be considered in relation other initiatives and support an overall energy strategy. Policies designed to improve national security, mitigate the effects of climate change, promote energy independence, or other efforts to achieve energy efficiency could complement and magnify the effect of an RTP policy if they are designed carefully.

Third, all parties involved in the discussion recognize that RTP at least has the potential to produce real value. Utilities, regulators, and consumers may disagree about who should shoulder more of the initial investment or how to best phase in RTP, but they generally agree that there is merit to the idea. This basic consensus is rare in policy settings and can be used to build strong support for a properly designed policy.

Fourth and finally, the electricity market today is changing rapidly and so must the policies that affect it. However, at some point, the industry will settle into an equilibrium state after absorbing the technological advances and policy changes being made today. The specific policies that serve society well for one generation are not necessarily the best ones for all time. But the values that those policies reflect should

be sturdier, and in particular the goals of sustainability and efficiency ought to be timeless. With that in mind, policies today should be designed with due consideration for their long-term effects. Specifically, while promoting the widespread adoption of RTP today, care must be taken to ensure that the rate structure's potential to deliver significant long-term benefits is not damaged.

The ultimate conclusion of my work is that the data show that there is real value to be harvested by RTP, but in the short-run the regulatory framework around the electricity market prevents free market forces from organically capturing that value. Thus, public policies that can help inject the needed activation energy into the effort to promote RTP, in consideration of how they fit into broader energy policy objectives, should be explored.

Works Cited

- 1 Borenstein, S. "The Long-Run Efficiency of Real-Time Electricity Pricing." (2005).
- 2 "How Much do Smart Meters Cost?" Smart Grid Watch. June, 2010.
<<http://www.emeter.com/2010/how-much-do-smart-meters-cost/>>
- 3 Faruqi, A. and Sergici S. "Household Response to Dynamic Pricing of Electricity—A Survey of the Experimental Evidence." February 2010.
- 4 "Electric Glossary." Washington State University Cooperative Extension Program. 2003.
- 5 Hughes, T. P. *Networks of Power: Electrification in Western Society, 1880-1930.* Johns Hopkins Univ Pr, 1993.
- 6 Burr, M.T. "CEO Forum Dealing With Disruption." *Public Utilities Fortnightly*. June, 2010: p 38-47.
- 7 Hirsh, R. F. *Power Loss: The Origins of Deregulation and Restructuring in the American Electric Utility System.* Cambridge, Massachusetts; London, England: The MIT Press, 1999.
- 8 Adams, Henry Carter. "Relation of the State to Industrial Action." *American Economic Association*. (1887): 110.
- 9 Ely, R. T., and T. S. Adams. *Outlines of Economics.* The Macmillan Company, 1910.
- 10 Pindyck, R. S., and D. L. Rubinfeld. "Microeconomics (6th Edn)." Prentice-Hall: NJ, 2004. 358.
- 11 United States Congress. "Interstate Commerce Act." Public Law 49-41, February 4, 1887. National Records, 1776-1992.
- 12 Anderson, Douglas D. *Regulatory Politics and Electric Utilities: A Case Study in Political Economy* Boston: Auburn House, 1981: p 34-35
- 13 Hirsh, R. F. *Power Loss: The Origins of Deregulation and Restructuring in the American Electric Utility System.* Cambridge, Massachusetts; London, England: The MIT Press, 1999: 33.
- 14 "Mission Statement." Minnesota Public Utilities Commission.
<<http://www.puc.state.mn.us/PUC/aboutus/index.html>>.

- 15 Wisconsin State Laws. "Public Utility Act." Chapter 499, July, 1907.
- 16 "Greatest Engineering Achievements of the Twentieth Century." National Academy of Engineering. 2010. <<http://www.greatachievements.org/>>.
- 17 Carter J. "The President's Proposed Energy Policy." 18 April 1977. *Vital Speeches of the Day*, Vol. XXXXIII, No. 14, May, 1977: 418-420.
- 18 United States Congress. "Public Utility Regulatory Policies Act," Public Law 95-617. Signed 9 November, 1978.
- 19 Gray, H. M. "The Passing of the Public Utility Concept." *The Journal of Land & Public Utility Economics* (1940): 8-20.
- 20 Reagan, R. "First Inaugural Address." Washington, DC, January 20 (1981).
- 21 United States Congress. "Energy Policy Act," Section 711, 15 USC 79z-5a.
- 22 Borenstein, S. "The Trouble with Electricity Markets: Understanding California's Restructuring Disaster." *The Journal of Economic Perspectives* 16.1 (2002): 191-211.
- 23 Puller, S. L. "Pricing and Firm Conduct in California's Deregulated Electricity Market." *The review of economics and statistics* 89.1 (2007): 75-87.
- 24 Order No. 2000, Regional Transmission Organizations, 89 F.E.R.C. 61,285 (1999).
- 25 Midwest, ISO. "Midwest Market Concepts Study Guide Version 3.0." Midwest ISO, <<http://www.midwestiso.org/page/Market%20Info>>
- 26 U.S. Department of Energy. "The Smart Grid: An Introduction." 2008.
- 27 Amin, M., and B. F. Wollenberg. "Toward a Smart Grid: Power Delivery for the 21 St Century." *IEEE Power & Energy Magazine* 3.5 (2005): 34-41.
- 28 Amin, M., and P. Schewe. "Preventing Blackouts." *Scientific American Magazine* 296.5 (2007): 60-7.
- 29 Wald, M. L. "Wind Energy Bumps into Power grid's Limits." *Energy*. 2008.
- 30 "Smart Grid City Hub." Xcel Energy. <<http://smartgridcity.xcelenergy.com/learn/index.asp>>
- 31 United States Congress. "American Reinvestment and Recovery Act," 111th Congress (2009-2010) H.R.1. Signed 17 February, 2009.

- 32 "Welcome." National Institute of Standards and Technology.
<<http://www.nist.gov/smartgrid/>>
- 33 The Brattle Group, "Fostering economic demand response in the Midwest ISO," December 30, 2008. <http://midwestiso.org/publish/Folder/30a6c2_101ed99cd65_-7f7f0a48324a?rev=2>
- 34 Nadel, S., and H. Geller. "Utility DSM: What have we Learned? Where are we Going?" *Energy Policy* 24.4 (1996): 289-302.
- 35 Aigner, D. J., and J. G. Hirschberg. "Commercial/Industrial Customer Response to Time-of-use Electricity Prices: Some Experimental Results." *The Rand Journal of Economics* 16.3 (1985): 341-55.
- 36 Vickrey, W. "Responsive Pricing of Public Utility Services." *The Bell Journal of Economics and Management Science* 2.1 (1971): 337-46.
- 37 Faruqui, A., S. Sergici, and A. Sharif. "The Impact of Informational Feedback on Energy Consumption--A Survey of the Experimental Evidence." *Energy* (2009).
- 38 Allcott, H. "Rethinking Real Time Electricity Pricing." MIT-CEEPR (Series); 2009-015 (2009).
- 39 Barbose, G., C. Goldman, and B. Neenan. "A Survey of Utility Experience with Real Time Pricing." Report No.LBNL 54328 (2004).
- 40 Allcott H. "The Smart Grid, Entry, and Imperfect Competition in Electricity Markets." (2009).
- 41 Earle, R., et al. "Fostering Economic Demand Response in the Midwest ISO." The Brattle Group (2008).
- 42 Spees, K., and L. Lave. "Impacts of Responsive Load in PJM: Load Shifting and Real Time Pricing." *Energy*, 2008: 101.
- 43 Doying, Richard. Personal Interview. 13 July 2010.
- 44 Reha, Phylis. Personal Interview. 15 July 2010.
- 45 Engelking, Betsy. Personal Interview. 28 April 2010.
- 46 King, C. S., and S. Chatterjee. "Predicting California Demand." *Public Utilities Fortnightly*. 2003.
- 47 Public Service Commission of Maryland. ORDER NO. 83410. CASE NO. 9208. (2010): 54.

48 Texas State Legislature. House Bill 3693 (80th Legislative Session, 2007).

49 Navigant Consulting (PI) LLC. Evaluation of Advanced Metering System (AMS) Deployment in Texas. (2010).

Appendix

The supply curves used in the model in section 3 are of the form $P_j(Q_S) = \alpha_2 \cdot Q_S^2 + \alpha_1 \cdot Q_S + \alpha_0 + \delta_j$ where P is the price of electricity in dollars per megawatt-hour (\$/MWh), Q_S is the quantity of electricity supplied in gigawatt-hours (GWh), and δ is a constant allowed to vary each day of the simulation. Table 4 presents the values of the coefficients in the equation for each month. Also included is the adjusted R^2 value for the regression that produced the coefficients.

Month	α_2	α_1	α_0	Adjusted R^2
July 2009	0.00665968	0.092604	-9.981511	0.955
August '09	0.01358896	-0.720154	15.711533	0.954
September '09	0.016630	-1.043684	23.518291	0.912
October '09	0.03718600	-2.907991	67.000550	0.843
November '09	0.03056339	-2.444030	62.105600	0.869
December '09	0.12115799	-14.310396	438.130922	0.872
January 2010	0.09912851	-10.933225	305.883880	0.875
February '10	0.09952883	-10.742380	298.398513	0.842
March '10	0.06855787	-6.524184	168.123113	0.866
April '10	0.02764860	-1.790345	31.812004	0.868
May '10	0.01996016	-1.261322	34.406722	0.938
June '10	0.02891885	-2.503683	66.315951	0.965
July '10	0.02078265	-1.654746	39.916464	0.961

Table 4. Supply Curve Monthly Coefficients.

To complete the daily supply curves calculated in section 3, each of the δ_j values used in the equation are presented in table 5.

Date	δ	Date	δ	Date	δ
7/16/09	-0.558903	11/15/09	0.330357	3/17/10	4.621244
7/17/09	1.101138	11/16/09	-4.640418	3/18/10	3.370291
7/18/09	3.274371	11/17/09	-5.286282	3/19/10	3.459113
7/19/09	3.779006	11/18/09	-2.508626	3/20/10	8.514086
7/20/09	1.754236	11/19/09	-1.880750	3/21/10	8.768409
7/21/09	2.277320	11/20/09	0.413289	3/22/10	5.400112
7/22/09	2.672370	11/21/09	-0.203174	3/23/10	3.344665
7/23/09	2.878416	11/22/09	0.807380	3/24/10	4.719872
7/24/09	2.665216	11/23/09	-2.401110	3/25/10	2.449208
7/25/09	2.627783	11/24/09	-1.454881	3/26/10	-1.108382
7/26/09	2.588371	11/25/09	-7.218785	3/27/10	5.651026
7/27/09	1.993279	11/26/09	-2.645004	3/28/10	5.897368
7/28/09	0.000000	11/27/09	-1.392808	3/29/10	4.654194
7/29/09	1.082793	11/28/09	-0.546444	3/30/10	1.442793
7/30/09	0.054251	11/29/09	-2.591875	3/31/10	2.099377

7/31/09	0.280253	11/30/09	-9.077082	4/1/10	0.000000
8/1/09	-1.236789	12/1/09	0.322984	4/2/10	2.895821
8/2/09	-0.662795	12/2/09	-2.739494	4/3/10	5.055211
8/3/09	-2.400872	12/3/09	1.504208	4/4/10	7.430362
8/4/09	-2.399520	12/4/09	1.872478	4/5/10	6.768472
8/5/09	-3.210724	12/5/09	11.236703	4/6/10	0.697814
8/6/09	-0.600435	12/6/09	6.978734	4/7/10	1.011104
8/7/09	-0.763406	12/7/09	1.992610	4/8/10	5.903090
8/8/09	0.000000	12/8/09	0.000000	4/9/10	5.825430
8/9/09	-1.615511	12/9/09	-3.721407	4/10/10	11.497267
8/10/09	-2.774435	12/10/09	-8.397635	4/11/10	10.552078
8/11/09	-3.401229	12/11/09	-3.360255	4/12/10	6.870392
8/12/09	-2.774623	12/12/09	10.951407	4/13/10	5.177438
8/13/09	-4.305511	12/13/09	7.853904	4/14/10	4.410763
8/14/09	-5.484427	12/14/09	-1.162683	4/15/10	6.570758
8/15/09	-1.413684	12/15/09	0.599675	4/16/10	7.870234
8/16/09	-1.970385	12/16/09	-0.756775	4/17/10	12.870187
8/17/09	-4.423313	12/17/09	2.089711	4/18/10	12.806540
8/18/09	-5.038169	12/18/09	8.253262	4/19/10	9.529182
8/19/09	-4.999725	12/19/09	7.081393	4/20/10	10.752504
8/20/09	-6.600281	12/20/09	4.840736	4/21/10	8.648128
8/21/09	-4.128474	12/21/09	3.133281	4/22/10	10.191818
8/22/09	1.103497	12/22/09	0.714124	4/23/10	4.420378
8/23/09	-0.032547	12/23/09	-3.944040	4/24/10	7.648511
8/24/09	-2.489761	12/24/09	3.138190	4/25/10	6.531468
8/25/09	-3.741644	12/25/09	1.990395	4/26/10	5.478800
8/26/09	-2.816652	12/26/09	3.242553	4/27/10	7.310961
8/27/09	-2.775800	12/27/09	3.020318	4/28/10	3.610735
8/28/09	-1.260834	12/28/09	5.862324	4/29/10	1.544589
8/29/09	1.208036	12/29/09	4.811352	4/30/10	8.351722
8/30/09	1.777449	12/30/09	7.576068	5/1/10	1.408414
8/31/09	2.127884	12/31/09	8.578926	5/2/10	2.340401
9/1/09	-1.166367	1/1/10	17.540113	5/3/10	0.404775
9/2/09	-2.061508	1/2/10	20.375723	5/4/10	-0.736482
9/3/09	-4.010755	1/3/10	17.965464	5/5/10	-1.258001
9/4/09	-3.048032	1/4/10	10.531312	5/6/10	1.308057
9/5/09	-0.340794	1/5/10	-5.296745	5/7/10	-3.705482
9/6/09	0.000000	1/6/10	-0.624968	5/8/10	1.598637
9/7/09	0.119801	1/7/10	-9.232080	5/9/10	0.000000
9/8/09	-3.948456	1/8/10	0.000000	5/10/10	-5.547031
9/9/09	-4.832840	1/9/10	8.762156	5/11/10	-4.546940
9/10/09	-2.666809	1/10/10	4.269407	5/12/10	-2.342221
9/11/09	-2.448089	1/11/10	4.364142	5/13/10	1.200537
9/12/09	3.390484	1/12/10	-0.881488	5/14/10	0.171239
9/13/09	2.968499	1/13/10	6.216388	5/15/10	1.643383
9/14/09	-0.424735	1/14/10	9.376239	5/16/10	-0.448434

9/15/09	0.129382	1/15/10	14.784256	5/17/10	2.390692
9/16/09	-1.171647	1/16/10	17.709544	5/18/10	0.645413
9/17/09	1.403666	1/17/10	20.389722	5/19/10	-3.083093
9/18/09	2.744463	1/18/10	17.501465	5/20/10	-3.085619
9/19/09	3.221901	1/19/10	18.491825	5/21/10	0.229760
9/20/09	2.900851	1/20/10	12.774989	5/22/10	-1.529430
9/21/09	2.271331	1/21/10	6.571881	5/23/10	-2.332044
9/22/09	0.092455	1/22/10	9.018314	5/24/10	-10.790311
9/23/09	1.468500	1/23/10	15.637897	5/25/10	-7.935638
9/24/09	0.490858	1/24/10	14.165201	5/26/10	-8.982754
9/25/09	1.977876	1/25/10	6.080284	5/27/10	-11.431252
9/26/09	3.521933	1/26/10	7.029355	5/28/10	-9.921951
9/27/09	1.172828	1/27/10	10.471347	5/29/10	-6.112601
9/28/09	-1.270037	1/28/10	11.238413	5/30/10	-7.182494
9/29/09	1.423379	1/29/10	7.213922	5/31/10	-6.131577
9/30/09	0.443403	1/30/10	16.230239	6/1/10	1.016230
10/1/09	-6.403035	1/31/10	16.149280	6/2/10	0.000000
10/2/09	-5.114502	2/1/10	0.885239	6/3/10	3.485104
10/3/09	1.050012	2/2/10	6.072720	6/4/10	1.290197
10/4/09	3.792842	2/3/10	8.301164	6/5/10	4.803900
10/5/09	-2.552710	2/4/10	9.105857	6/6/10	2.294939
10/6/09	-4.213961	2/5/10	6.525692	6/7/10	5.113483
10/7/09	-4.057183	2/6/10	16.569741	6/8/10	6.136604
10/8/09	0.000000	2/7/10	15.394426	6/9/10	4.358587
10/9/09	2.799501	2/8/10	6.622637	6/10/10	2.041522
10/10/09	3.033691	2/9/10	-2.776111	6/11/10	2.293388
10/11/09	7.346190	2/10/10	0.000000	6/12/10	3.750657
10/12/09	0.640382	2/11/10	1.222518	6/13/10	1.723609
10/13/09	1.548859	2/12/10	4.712844	6/14/10	-0.420122
10/14/09	-0.764141	2/13/10	8.876856	6/15/10	1.125033
10/15/09	-0.776829	2/14/10	4.749666	6/16/10	1.598525
10/16/09	7.228564	2/15/10	-1.460347	6/17/10	-6.107907
10/17/09	8.045830	2/16/10	-3.102207	6/18/10	-7.031541
10/18/09	3.152732	2/17/10	3.901992	6/19/10	1.234275
10/19/09	5.022022	2/18/10	6.409997	6/20/10	1.609536
10/20/09	3.062074	2/19/10	10.455341	6/21/10	-2.202224
10/21/09	4.885166	2/20/10	16.526842	6/22/10	-4.294337
10/22/09	0.254062	2/21/10	11.759593	6/23/10	-7.402937
10/23/09	2.723988	2/22/10	11.735446	6/24/10	0.091965
10/24/09	8.623714	2/23/10	9.216172	6/25/10	-4.538932
10/25/09	6.923211	2/24/10	7.068158	6/26/10	1.906716
10/26/09	5.111082	2/25/10	8.644636	6/27/10	0.578619
10/27/09	-0.836072	2/26/10	8.758006	6/28/10	-2.724524
10/28/09	-0.203431	2/27/10	21.225342	6/29/10	2.232312
10/29/09	-2.101430	2/28/10	23.068309	6/30/10	0.991262
10/30/09	-0.818773	3/1/10	4.780816	7/1/10	5.218264

10/31/09	3.612898	3/2/10	4.178093	7/2/10	4.983412
11/1/09	4.786231	3/3/10	2.136647	7/3/10	5.915691
11/2/09	4.427794	3/4/10	2.433766	7/4/10	4.539380
11/3/09	0.000000	3/5/10	-0.221168	7/5/10	2.010152
11/4/09	-0.275220	3/6/10	3.497045	7/6/10	0.000000
11/5/09	0.318380	3/7/10	4.578658	7/7/10	0.125467
11/6/09	-5.985025	3/8/10	0.000000	7/8/10	-0.295002
11/7/09	0.737052	3/9/10	-4.555019	7/9/10	3.388235
11/8/09	0.340776	3/10/10	3.589414	7/10/10	5.914267
11/9/09	-1.237385	3/11/10	1.225635	7/11/10	4.718321
11/10/09	-0.822760	3/12/10	5.768091	7/12/10	4.128481
11/11/09	-3.468031	3/13/10	6.911148	7/13/10	-0.664796
11/12/09	-8.313194	3/14/10	8.765074	7/14/10	-3.386588
11/13/09	-4.664248	3/15/10	4.260525	7/15/10	-2.172276
11/14/09	-0.029010	3/16/10	3.342535		

Table 5. Daily Supply Curve Constants

The hourly demand curves used in the model in section 3 are of the form $P_i(Q_D) = B_i Q_D^{1/E}$ where P is the price of electricity in dollars per megawatt-hour (\$/MWh), Q_D is the quantity of electricity demanded in gigawatt-hours (GWh), B is a constant calculated from observed data, and E is the assumed elasticity of demand. i is an index variable that indicates for which hour the equation holds. Table 6 presents the values for B at each hour of the year with the assumed value for E being -.28 because that was used in the analysis. Also included are the hourly values for eliminated deadweight loss (DWL) in dollars calculated by the model (also using the assumed value of E=-.28). The column Hr indicates the hour of the day.

Date	Hr	B	DWL (\$)	Date	Hr	B	DWL (\$)
7/17	1	52838509.35	47,954	1/15	13	130436921.74	6,406
7/17	2	42836141.11	62,029	1/15	14	125449110.04	3,208
7/17	3	37906757.39	69,801	1/15	15	121063213.33	1,204
7/17	4	36494453.21	72,198	1/15	16	116294788.45	133
7/17	5	42070282.32	63,115	1/15	17	118374489.44	369
7/17	6	51301660.33	50,023	1/15	18	132856317.43	8,546
7/17	7	61947845.46	37,244	1/15	19	147247892.35	26,298
7/17	8	80810924.41	20,284	1/15	20	149017949.79	29,306
7/17	9	98554210.45	9,646	1/15	21	139412127.98	15,373
7/17	10	115972284.93	3,328	1/15	22	128911978.00	5,425
7/17	11	130745951.84	590	1/15	23	115706824.72	3
7/17	12	142400290.46	-110	1/15	24	100767025.92	3,978
7/17	13	153941912.59	516	1/16	1	89596472.91	2,638
7/17	14	163980766.04	1,910	1/16	2	80847077.32	8,128
7/17	15	168215708.11	2,959	1/16	3	74661841.19	12,973
7/17	16	170997571.60	3,511	1/16	4	72925983.51	14,518

7/17	17	164689192.63	2,331	1/16	5	74306992.71	13,312
7/17	18	154721655.70	747	1/16	6	86706518.57	4,264
7/17	19	141702601.91	-101	1/16	7	102840533.59	165
7/17	20	128567875.18	675	1/16	8	127761096.12	15,630
7/17	21	124916907.90	1,489	1/16	9	129879776.00	18,405
7/17	22	104684715.45	6,941	1/16	10	128967121.88	17,257
7/17	23	71512187.77	27,774	1/16	11	126111228.99	13,603
7/17	24	56720261.42	43,178	1/16	12	124776191.61	12,149
7/18	1	46795251.95	46,348	1/16	13	116972574.45	5,331
7/18	2	38892596.00	57,605	1/16	14	115473557.92	4,299
7/18	3	34736892.08	64,148	1/16	15	112744863.75	2,729
7/18	4	34447332.74	64,564	1/16	16	108869905.62	1,328
7/18	5	38780214.69	57,790	1/16	17	111088614.62	2,052
7/18	6	45227819.53	48,541	1/16	18	120851937.19	8,624
7/18	7	52043211.66	39,901	1/16	19	132788715.96	22,247
7/18	8	67730944.11	23,930	1/16	20	130747262.41	19,423
7/18	9	80484223.45	14,651	1/16	21	124799636.39	12,438
7/18	10	94416701.61	7,267	1/16	22	117280109.90	5,516
7/18	11	97817887.07	5,965	1/16	23	103089921.76	15
7/18	12	101567865.67	4,495	1/16	24	92147511.21	1,698
7/18	13	105911554.21	3,376	1/17	1	76271107.40	5,270
7/18	14	108027399.54	2,740	1/17	2	67783195.47	10,526
7/18	15	107879546.45	2,940	1/17	3	62560806.84	13,903
7/18	16	103674814.27	4,026	1/17	4	61172188.62	14,872
7/18	17	96661516.06	6,368	1/17	5	61785351.37	14,454
7/18	18	89333189.35	9,603	1/17	6	66337120.05	11,415
7/18	19	79268245.69	15,308	1/17	7	76557770.76	5,000
7/18	20	72356018.84	20,254	1/17	8	88864851.64	547
7/18	21	70406943.50	21,783	1/17	9	94136048.74	98
7/18	22	64015463.06	27,214	1/17	10	99604469.59	578
7/18	23	48969963.67	43,651	1/17	11	101372410.66	1,189
7/18	24	39795375.07	56,154	1/17	12	100062597.33	863
7/19	1	30392051.15	57,590	1/17	13	95646805.98	153
7/19	2	27834429.06	61,833	1/17	14	90909676.16	294
7/19	3	25687451.90	65,500	1/17	15	85939657.01	1,122
7/19	4	23075139.51	70,259	1/17	16	83151591.72	2,094
7/19	5	24973683.12	66,817	1/17	17	85514613.06	1,183
7/19	6	24277815.74	67,990	1/17	18	98112259.12	228
7/19	7	25442003.22	65,946	1/17	19	110557480.44	5,766
7/19	8	27917558.20	61,709	1/17	20	110303905.52	5,731
7/19	9	35911385.26	49,213	1/17	21	104493880.82	2,142
7/19	10	43898613.89	38,546	1/17	22	99104368.87	569
7/19	11	47965808.77	33,617	1/17	23	87124564.25	713
7/19	12	50122765.12	31,302	1/17	24	76567131.51	4,941
7/19	13	49999005.07	31,393	1/18	1	69838722.30	3,618
7/19	14	50741892.89	30,687	1/18	2	61625070.68	7,291

7/19	15	50435605.35	31,059	1/18	3	57307876.07	8,783
7/19	16	50229631.72	31,142	1/18	4	55157841.50	9,551
7/19	17	51097142.51	30,369	1/18	5	54542896.36	9,865
7/19	18	51352129.44	29,985	1/18	6	56771997.90	9,185
7/19	19	47606754.58	34,077	1/18	7	62487222.16	6,800
7/19	20	43285897.79	39,240	1/18	8	70502249.64	3,397
7/19	21	45515302.13	36,524	1/18	9	75128659.81	1,870
7/19	22	42729135.71	39,923	1/18	10	81848191.80	295
7/19	23	34541229.30	51,189	1/18	11	83121320.49	121
7/19	24	28517828.09	60,626	1/18	12	86738211.92	-136
7/20	1	23237759.47	66,651	1/18	13	84096327.53	182
7/20	2	21565915.39	69,688	1/18	14	82811025.94	327
7/20	3	20265200.86	72,143	1/18	15	80806290.26	569
7/20	4	19436666.88	73,724	1/18	16	79229404.36	654
7/20	5	19882329.11	72,820	1/18	17	82946470.40	47
7/20	6	19402137.13	73,797	1/18	18	92141908.33	653
7/20	7	19943181.44	72,743	1/18	19	108236583.49	9,248
7/20	8	23768566.67	65,714	1/18	20	107270836.99	8,404
7/20	9	30324266.67	54,684	1/18	21	103685349.75	5,664
7/20	10	35338631.19	47,112	1/18	22	97322146.55	2,358
7/20	11	40235965.41	40,484	1/18	23	90294767.69	174
7/20	12	43686642.07	36,298	1/18	24	79585886.85	641
7/20	13	46631908.84	32,776	1/19	1	66113457.92	12,047
7/20	14	48895689.07	30,423	1/19	2	60561160.24	15,982
7/20	15	50979303.72	28,149	1/19	3	57001628.10	18,062
7/20	16	54079559.04	25,067	1/19	4	56582104.90	18,223
7/20	17	57445493.46	22,037	1/19	5	59196595.14	16,743
7/20	18	59582327.15	20,189	1/19	6	70948943.50	8,888
7/20	19	57179165.81	22,342	1/19	7	93296152.11	-108
7/20	20	54982037.56	24,253	1/19	8	113773662.28	7,918
7/20	21	57085656.36	22,341	1/19	9	123416153.90	18,023
7/20	22	53768905.37	25,355	1/19	10	123908440.02	18,730
7/20	23	42076075.46	38,232	1/19	11	126462101.95	22,066
7/20	24	32741980.20	50,986	1/19	12	120725051.52	14,854
7/21	1	27375724.05	72,402	1/19	13	116484017.40	10,188
7/21	2	25513459.29	75,893	1/19	14	115126385.56	9,190
7/21	3	24814475.83	77,192	1/19	15	112627698.04	6,765
7/21	4	25035418.71	76,767	1/19	16	109462064.06	4,670
7/21	5	28781624.07	69,899	1/19	17	112532381.66	6,934
7/21	6	35025407.49	59,510	1/19	18	123924831.83	18,635
7/21	7	42759312.24	48,111	1/19	19	139078886.59	43,086
7/21	8	57684714.87	30,522	1/19	20	136651260.58	38,772
7/21	9	73269596.21	17,137	1/19	21	130754470.71	28,359
7/21	10	85221499.22	9,911	1/19	22	121011144.10	14,916
7/21	11	93584786.57	6,175	1/19	23	107477827.28	3,365
7/21	12	98087748.19	4,567	1/19	24	91455635.23	52

7/21	13	104598195.01	2,585	1/20	1	80810460.98	2,089
7/21	14	111451511.20	1,161	1/20	2	70716712.29	6,699
7/21	15	114010389.56	933	1/20	3	64888854.10	10,301
7/21	16	116988905.21	664	1/20	4	63403932.71	11,143
7/21	17	116543121.49	526	1/20	5	66279245.03	9,505
7/21	18	111978698.80	1,072	1/20	6	78480405.97	2,939
7/21	19	103176094.76	3,118	1/20	7	96908476.74	614
7/21	20	94469585.48	5,804	1/20	8	125245054.90	23,634
7/21	21	97294599.71	4,814	1/20	9	127502205.49	26,863
7/21	22	81651460.79	11,905	1/20	10	128902897.11	29,221
7/21	23	61433890.10	26,926	1/20	11	124758451.71	22,786
7/21	24	45128424.17	44,903	1/20	12	120033515.40	16,423
7/22	1	38000349.93	51,873	1/20	13	114904112.36	11,073
7/22	2	32321255.43	60,544	1/20	14	113160063.99	9,184
7/22	3	29195632.30	65,797	1/20	15	111107846.58	7,433
7/22	4	28539726.07	66,895	1/20	16	106698565.04	4,601
7/22	5	33462163.31	58,707	1/20	17	109499547.29	6,484
7/22	6	40318772.26	48,524	1/20	18	120990692.75	17,820
7/22	7	53367013.44	32,583	1/20	19	136289024.20	42,018
7/22	8	69257635.62	18,137	1/20	20	137253586.92	44,297
7/22	9	81126960.29	10,763	1/20	21	128676672.26	28,615
7/22	10	90185386.06	6,368	1/20	22	118224492.27	14,541
7/22	11	99969122.21	3,104	1/20	23	107888105.39	5,389
7/22	12	106782934.32	1,495	1/20	24	92254012.64	-10
7/22	13	112888054.42	674	1/21	1	81980627.82	11,832
7/22	14	119172498.62	-5	1/21	2	74379436.67	19,540
7/22	15	123868097.59	25	1/21	3	68900825.48	25,707
7/22	16	124631157.93	2	1/21	4	67658330.27	27,191
7/22	17	124153849.86	-142	1/21	5	70987350.23	23,327
7/22	18	118180616.56	120	1/21	6	82486514.95	11,421
7/22	19	109932136.54	957	1/21	7	104916061.36	16
7/22	20	100534171.07	2,831	1/21	8	126620191.85	9,515
7/22	21	99418198.88	3,316	1/21	9	129386120.15	12,357
7/22	22	90617446.43	6,298	1/21	10	126602263.58	9,612
7/22	23	68116980.43	19,139	1/21	11	125927445.06	8,808
7/22	24	49315596.22	36,967	1/21	12	120933070.50	5,022
7/23	1	39651137.08	47,216	1/21	13	119385339.77	4,065
7/23	2	33712886.79	56,018	1/21	14	117987580.98	3,214
7/23	3	30766123.83	60,637	1/21	15	113947465.05	1,478
7/23	4	30684352.70	60,837	1/21	16	111489483.67	651
7/23	5	35475498.12	53,317	1/21	17	114429533.70	1,617
7/23	6	42068834.12	43,907	1/21	18	127704391.21	10,613
7/23	7	52104002.41	32,083	1/21	19	139975689.83	26,189
7/23	8	71261272.93	15,382	1/21	20	138995323.55	24,813
7/23	9	84467956.10	7,858	1/21	21	131416886.54	14,606
7/23	10	96760140.37	3,416	1/21	22	125296522.89	8,208

7/23	11	102393609.20	2,115	1/21	23	108949760.86	123
7/23	12	107017041.21	1,022	1/21	24	92494858.65	3,981
7/23	13	110824272.80	716	1/22	1	82750670.03	31,373
7/23	14	115079156.51	286	1/22	2	73188006.93	47,620
7/23	15	114791301.69	251	1/22	3	68936777.46	55,416
7/23	16	116629403.94	253	1/22	4	67596367.34	57,821
7/23	17	113236854.72	428	1/22	5	71285827.75	51,119
7/23	18	109341027.52	786	1/22	6	83123212.21	30,804
7/23	19	100392693.84	2,476	1/22	7	106425402.61	4,410
7/23	20	93362979.96	4,526	1/22	8	133032728.02	4,246
7/23	21	96870981.29	3,357	1/22	9	138659382.00	8,336
7/23	22	85551303.26	7,483	1/22	10	139129590.00	8,817
7/23	23	64079358.38	20,774	1/22	11	142423984.17	12,250
7/23	24	47146120.58	37,679	1/22	12	139157002.78	8,678
7/24	1	38368523.23	47,819	1/22	13	133793349.14	4,572
7/24	2	33377008.26	55,262	1/22	14	131585994.24	3,343
7/24	3	30627390.46	59,592	1/22	15	124698276.33	512
7/24	4	30155053.87	60,441	1/22	16	117938292.87	49
7/24	5	35415843.83	52,109	1/22	17	119053623.00	-116
7/24	6	43889356.39	40,482	1/22	18	131694647.88	3,163
7/24	7	55800476.99	27,251	1/22	19	149863510.68	21,217
7/24	8	72361582.72	14,019	1/22	20	147308577.02	17,979
7/24	9	86203956.59	6,609	1/22	21	142458135.98	12,078
7/24	10	95830058.70	3,272	1/22	22	127425641.22	1,404
7/24	11	106820321.30	1,007	1/22	23	109008961.36	2,821
7/24	12	114154141.17	120	1/22	24	90255118.37	20,563
7/24	13	121288412.28	107	1/23	1	78453183.63	28,052
7/24	14	127867466.67	411	1/23	2	67418451.48	44,825
7/24	15	131461615.76	690	1/23	3	63704093.18	50,591
7/24	16	133182743.16	881	1/23	4	62341393.12	52,540
7/24	17	131349155.80	581	1/23	5	66389399.57	46,341
7/24	18	122689130.38	-17	1/23	6	81888888.93	23,397
7/24	19	115449590.83	134	1/23	7	102417241.24	3,456
7/24	20	105478631.72	1,155	1/23	8	124174684.78	2,222
7/24	21	106193356.88	1,128	1/23	9	131916765.39	7,162
7/24	22	95176743.37	3,598	1/23	10	132015717.45	7,044
7/24	23	70081003.27	15,512	1/23	11	131632081.84	6,661
7/24	24	51848687.72	31,316	1/23	12	129050194.11	4,933
7/25	1	44252643.25	41,119	1/23	13	127875205.20	4,223
7/25	2	37195249.15	50,818	1/23	14	124731211.84	2,553
7/25	3	33539354.76	56,337	1/23	15	118558208.90	246
7/25	4	32424148.52	58,078	1/23	16	111437492.95	201
7/25	5	39607855.98	47,399	1/23	17	112136441.85	126
7/25	6	46875668.83	37,974	1/23	18	125095820.33	2,458
7/25	7	56659586.22	27,334	1/23	19	138574633.91	13,600
7/25	8	74903763.78	13,162	1/23	20	134431370.55	9,428

7/25	9	92531637.63	4,614	1/23	21	127318249.73	3,750
7/25	10	106772173.15	1,161	1/23	22	115286709.59	-64
7/25	11	114060865.97	390	1/23	23	97665893.77	6,579
7/25	12	124693843.18	55	1/23	24	84645108.85	19,798
7/25	13	134803443.26	814	1/24	1	71703767.22	13,226
7/25	14	142430953.45	2,184	1/24	2	61986124.04	21,460
7/25	15	144024964.36	2,585	1/24	3	55955038.54	26,178
7/25	16	146404460.87	2,870	1/24	4	53244741.08	27,776
7/25	17	142925701.47	2,251	1/24	5	53648730.88	27,599
7/25	18	138891262.79	1,630	1/24	6	56957666.00	25,476
7/25	19	127565283.28	198	1/24	7	66522242.35	17,689
7/25	20	113333191.50	233	1/24	8	77664887.83	8,505
7/25	21	111979284.91	362	1/24	9	84654692.29	3,950
7/25	22	99585615.76	2,667	1/24	10	99200483.99	73
7/25	23	69751565.61	16,439	1/24	11	95239843.68	319
7/25	24	52066171.05	32,178	1/24	12	93220113.10	720
7/26	1	42957156.95	43,071	1/24	13	88872791.63	2,119
7/26	2	35531377.48	53,470	1/24	14	84722277.70	4,069
7/26	3	31489622.27	59,727	1/24	15	78870885.23	7,737
7/26	4	28837197.29	64,189	1/24	16	74759506.58	10,799
7/26	5	29999915.94	62,236	1/24	17	76032664.45	9,606
7/26	6	29885185.56	62,435	1/24	18	86061307.71	3,446
7/26	7	33045980.01	57,228	1/24	19	104479940.75	528
7/26	8	42513075.91	43,675	1/24	20	96022483.64	221
7/26	9	55893176.98	28,335	1/24	21	92061457.59	919
7/26	10	71512612.15	15,376	1/24	22	83603763.96	4,539
7/26	11	82899731.13	8,714	1/24	23	71447278.99	13,449
7/26	12	84742896.59	7,904	1/24	24	63044310.75	20,679
7/26	13	89234104.06	6,009	1/25	1	58234826.52	30,933
7/26	14	90777081.15	5,468	1/25	2	49858115.15	36,758
7/26	15	94907992.25	4,141	1/25	3	46212795.07	37,891
7/26	16	95000639.16	3,902	1/25	4	43188119.09	37,713
7/26	17	97006753.82	3,506	1/25	5	43618824.32	37,702
7/26	18	94077612.00	4,409	1/25	6	44021782.57	37,862
7/26	19	84770234.16	7,999	1/25	7	45917208.65	37,837
7/26	20	77311483.43	11,781	1/25	8	52111435.89	35,613
7/26	21	78247421.57	11,305	1/25	9	59404272.78	29,927
7/26	22	70090623.42	16,302	1/25	10	66562938.51	22,911
7/26	23	52561563.98	31,714	1/25	11	73698038.96	15,694
7/26	24	40612245.20	46,094	1/25	12	75866029.78	13,777
7/27	1	33936664.56	56,170	1/25	13	77975182.44	11,852
7/27	2	27484716.15	66,813	1/25	14	76150708.67	13,423
7/27	3	24693083.83	71,804	1/25	15	72640598.68	16,823
7/27	4	23689745.09	73,614	1/25	16	70422051.94	18,855
7/27	5	23744957.97	73,523	1/25	17	75191999.31	14,239
7/27	6	24245662.26	72,607	1/25	18	91964780.02	2,303

7/27	7	25794211.64	69,714	1/25	19	111424644.00	1,683
7/27	8	30124982.20	62,216	1/25	20	109912473.03	1,161
7/27	9	42468150.50	43,875	1/25	21	103152336.77	-95
7/27	10	51309011.22	33,278	1/25	22	93380977.96	1,807
7/27	11	59432497.97	25,066	1/25	23	82222498.30	8,309
7/27	12	64783660.13	20,548	1/25	24	68089119.91	21,254
7/27	13	72257204.40	15,123	1/26	1	55039656.72	82,973
7/27	14	76711212.73	12,343	1/26	2	49056935.69	90,816
7/27	15	80841978.13	9,856	1/26	3	48231501.92	91,720
7/27	16	83874297.10	8,452	1/26	4	48047349.91	91,871
7/27	17	88212547.14	6,404	1/26	5	51666440.68	87,815
7/27	18	87518534.43	6,719	1/26	6	62989681.03	69,280
7/27	19	82985670.47	8,816	1/26	7	96610913.52	14,066
7/27	20	78741176.88	11,170	1/26	8	128627446.33	1,244
7/27	21	82807724.41	8,847	1/26	9	130015475.07	2,030
7/27	22	73482727.23	14,209	1/26	10	133477152.71	3,623
7/27	23	56855422.58	27,585	1/26	11	133719410.79	3,905
7/27	24	43290036.96	42,805	1/26	12	134777990.26	4,639
7/28	1	35549333.83	57,282	1/26	13	132098878.46	3,137
7/28	2	29628985.27	66,848	1/26	14	129256093.53	1,593
7/28	3	27402942.85	70,831	1/26	15	127045241.96	914
7/28	4	27063051.13	71,445	1/26	16	120111170.47	130
7/28	5	32836141.97	61,560	1/26	17	126797652.16	795
7/28	6	40764087.00	49,549	1/26	18	139205670.05	7,916
7/28	7	56844989.67	30,313	1/26	19	153605345.73	25,608
7/28	8	80322152.90	11,875	1/26	20	153108463.81	24,726
7/28	9	97700954.05	4,333	1/26	21	149343645.44	19,168
7/28	10	116498489.88	306	1/26	22	135451648.51	5,082
7/28	11	134638729.83	490	1/26	23	116925405.91	270
7/28	12	144243575.90	1,748	1/26	24	100865930.04	9,767
7/28	13	150110902.54	2,818	1/27	1	91654888.18	17,227
7/28	14	160021614.76	5,463	1/27	2	81799561.46	31,056
7/28	15	166706676.18	7,650	1/27	3	80641901.97	32,859
7/28	16	166785526.20	7,673	1/27	4	79272816.16	35,021
7/28	17	165955437.89	7,256	1/27	5	83648413.22	28,188
7/28	18	160574047.42	5,525	1/27	6	99569995.97	8,949
7/28	19	154275319.08	3,814	1/27	7	126361689.57	1,229
7/28	20	136428835.68	454	1/27	8	156824580.78	34,084
7/28	21	135282335.61	349	1/27	9	162352132.88	44,639
7/28	22	115211313.36	566	1/27	10	161666996.22	43,230
7/28	23	83748699.08	9,971	1/27	11	158619407.60	37,409
7/28	24	61674649.34	25,618	1/27	12	155145942.99	31,418
7/29	1	49719144.59	48,847	1/27	13	149513180.70	22,478
7/29	2	40928830.12	61,383	1/27	14	149409278.83	22,067
7/29	3	36479029.48	68,400	1/27	15	146788701.34	18,682
7/29	4	35668781.20	69,781	1/27	16	145762126.93	17,095

7/29	5	43587617.97	57,324	1/27	17	146789413.57	18,678
7/29	6	54611366.95	42,741	1/27	18	154501327.23	30,177
7/29	7	69222392.34	27,467	1/27	19	169251901.66	59,933
7/29	8	94299085.59	10,168	1/27	20	171698977.26	65,904
7/29	9	115018795.39	2,711	1/27	21	170438568.80	62,753
7/29	10	139098070.10	143	1/27	22	153661280.70	28,967
7/29	11	151974263.94	993	1/27	23	132347265.72	4,178
7/29	12	160681201.82	2,047	1/27	24	118323865.33	168
7/29	13	165660754.54	3,153	1/28	1	104388527.11	1,230
7/29	14	177928424.83	6,526	1/28	2	94190889.26	6,629
7/29	15	185316072.33	9,024	1/28	3	88414599.20	11,613
7/29	16	182622935.62	8,126	1/28	4	87294441.67	12,659
7/29	17	181751732.17	7,628	1/28	5	91397895.07	8,759
7/29	18	168379178.64	3,874	1/28	6	104742238.16	1,024
7/29	19	155605232.35	1,381	1/28	7	121707349.96	2,323
7/29	20	140754299.74	148	1/28	8	149281637.35	33,402
7/29	21	140473255.48	164	1/28	9	155349868.49	44,986
7/29	22	116897594.99	2,215	1/28	10	155741946.32	46,174
7/29	23	87536695.71	13,868	1/28	11	155165214.97	44,869
7/29	24	64218283.04	32,207	1/28	12	149432363.64	34,124
7/30	1	48505312.49	44,249	1/28	13	141563082.57	21,178
7/30	2	39480430.26	56,784	1/28	14	140722515.25	20,070
7/30	3	35412773.46	63,097	1/28	15	140510520.64	19,812
7/30	4	34520124.21	64,575	1/28	16	138302871.84	16,987
7/30	5	41583981.85	53,739	1/28	17	138810517.47	17,443
7/30	6	52435192.76	39,440	1/28	18	143902056.37	24,841
7/30	7	65610309.35	25,971	1/28	19	156645383.66	47,988
7/30	8	86603694.56	11,157	1/28	20	164075661.79	64,917
7/30	9	105781543.39	3,252	1/28	21	157606555.76	50,114
7/30	10	119230128.88	629	1/28	22	145027895.87	26,591
7/30	11	125074239.55	192	1/28	23	130386557.87	8,252
7/30	12	130729570.51	102	1/28	24	118682839.75	1,101
7/30	13	137032489.85	73	1/29	1	102189328.39	1,294
7/30	14	143020045.99	561	1/29	2	93972698.34	5,502
7/30	15	148987712.02	1,308	1/29	3	90031009.53	8,319
7/30	16	149668408.78	1,610	1/29	4	88201194.68	9,837
7/30	17	148471473.25	1,290	1/29	5	92800136.07	6,265
7/30	18	138246246.24	194	1/29	6	107878975.87	-82
7/30	19	127185868.56	63	1/29	7	128631332.09	8,166
7/30	20	116425537.68	1,055	1/29	8	155612660.24	49,172
7/30	21	118189147.03	772	1/29	9	153705450.24	45,082
7/30	22	99409053.32	5,486	1/29	10	147186512.06	32,697
7/30	23	73652946.25	19,318	1/29	11	145964189.55	30,685
7/30	24	53398988.65	38,450	1/29	12	138909058.68	20,012
7/31	1	44498848.79	55,741	1/29	13	135489966.62	15,350
7/31	2	36401459.23	68,164	1/29	14	135891093.77	15,854

7/31	3	33354947.44	73,387	1/29	15	133223919.04	12,704
7/31	4	32558334.11	74,762	1/29	16	129915648.05	9,436
7/31	5	39206363.59	63,669	1/29	17	130814769.55	10,407
7/31	6	49114870.85	49,269	1/29	18	141163121.31	23,330
7/31	7	59518718.82	36,830	1/29	19	154307802.32	46,230
7/31	8	79526316.71	18,888	1/29	20	157526358.78	53,521
7/31	9	96071289.42	9,173	1/29	21	156558824.60	51,365
7/31	10	108520532.96	4,399	1/29	22	142151677.81	24,695
7/31	11	118940341.78	1,856	1/29	23	132629089.32	12,470
7/31	12	124665980.27	964	1/29	24	120250547.16	2,626
7/31	13	131355730.50	130	1/30	1	119691278.63	82
7/31	14	139895867.02	-39	1/30	2	111461441.56	1,344
7/31	15	140750844.66	173	1/30	3	106924601.42	3,306
7/31	16	143162696.12	40	1/30	4	104645635.32	4,548
7/31	17	136982337.91	157	1/30	5	108584151.48	2,430
7/31	18	128149495.53	439	1/30	6	119485414.33	-135
7/31	19	115871334.43	2,377	1/30	7	142892866.11	13,970
7/31	20	106559375.84	4,881	1/30	8	171388224.85	66,019
7/31	21	108884264.96	4,196	1/30	9	182189039.20	95,321
7/31	22	93681656.22	10,315	1/30	10	178880001.06	85,892
7/31	23	70781563.82	25,793	1/30	11	177035103.36	80,549
7/31	24	52027009.42	45,498	1/30	12	173360770.72	71,154
8/1	1	43443682.92	55,791	1/30	13	163110807.66	47,057
8/1	2	35508813.05	68,201	1/30	14	152164946.66	26,871
8/1	3	32573027.35	73,222	1/30	15	147936468.12	20,742
8/1	4	32337788.78	73,613	1/30	16	143786240.89	15,130
8/1	5	38846083.85	62,796	1/30	17	141870016.79	13,099
8/1	6	50199692.55	46,678	1/30	18	149763769.07	23,193
8/1	7	57562292.19	37,709	1/30	19	165519378.32	52,130
8/1	8	81155312.29	16,877	1/30	20	171271996.13	66,002
8/1	9	97395278.86	7,983	1/30	21	161282523.01	43,247
8/1	10	110181620.06	3,578	1/30	22	146293593.03	18,518
8/1	11	116314062.79	1,891	1/30	23	127405701.35	1,685
8/1	12	121256133.88	1,066	1/30	24	112213318.85	863
8/1	13	130365631.55	135	1/31	1	102771642.36	411
8/1	14	138950817.02	-101	1/31	2	96402379.65	-14
8/1	15	139781694.84	206	1/31	3	94595140.37	316
8/1	16	139447131.05	155	1/31	4	93197001.97	244
8/1	17	134877812.66	-77	1/31	5	94482031.84	80
8/1	18	126187862.60	355	1/31	6	99925378.02	34
8/1	19	111565456.55	2,996	1/31	7	104398557.50	1,035
8/1	20	97320027.36	8,121	1/31	8	112649475.98	4,868
8/1	21	98391781.96	7,624	1/31	9	118633342.69	9,652
8/1	22	84516287.50	14,642	1/31	10	130493843.22	23,545
8/1	23	62855769.57	32,231	1/31	11	132448434.38	26,623
8/1	24	47631771.33	49,985	1/31	12	132725113.68	26,968

8/2	1	39969573.02	57,959	1/31	13	123392896.54	14,207
8/2	2	33118821.91	67,590	1/31	14	118449539.38	9,488
8/2	3	31679536.11	69,676	1/31	15	111742676.49	4,092
8/2	4	30415205.25	71,552	1/31	16	107710749.95	2,300
8/2	5	31510552.53	69,941	1/31	17	108422005.94	2,456
8/2	6	31491973.48	69,945	1/31	18	116408058.16	7,586
8/2	7	34697292.45	65,351	1/31	19	134324436.41	29,506
8/2	8	42022800.22	55,118	1/31	20	137772746.95	35,344
8/2	9	54134411.97	39,845	1/31	21	134773301.92	30,385
8/2	10	70755870.76	22,995	1/31	22	127423068.21	19,426
8/2	11	80410315.97	15,544	1/31	23	112940531.49	5,082
8/2	12	84614926.13	12,918	1/31	24	104708168.56	935
8/2	13	88796886.40	10,271	2/1	1	98348535.86	50
8/2	14	92898982.07	8,285	2/1	2	90236051.00	1,087
8/2	15	96525038.32	6,411	2/1	3	86461056.15	2,555
8/2	16	99705785.56	5,189	2/1	4	85448502.78	2,973
8/2	17	101199566.36	4,747	2/1	5	85039632.35	3,025
8/2	18	95532793.31	7,080	2/1	6	90985363.11	909
8/2	19	88350835.35	10,523	2/1	7	97863092.71	79
8/2	20	79539144.49	16,141	2/1	8	104789166.74	1,090
8/2	21	80650231.35	15,335	2/1	9	104770728.71	854
8/2	22	70670415.96	23,075	2/1	10	107771745.64	2,218
8/2	23	52332084.20	41,884	2/1	11	107497176.21	2,039
8/2	24	41307185.22	56,074	2/1	12	107376570.86	2,032
8/3	1	35222274.99	60,936	2/1	13	105150015.74	1,044
8/3	2	28690932.42	70,112	2/1	14	103253473.66	564
8/3	3	26309664.40	73,552	2/1	15	100768655.64	244
8/3	4	25661471.18	74,424	2/1	16	97715299.50	9
8/3	5	26152179.60	73,735	2/1	17	101917958.36	390
8/3	6	26736862.22	72,893	2/1	18	113781962.50	5,434
8/3	7	27217688.34	72,230	2/1	19	137282769.19	34,257
8/3	8	34216141.04	62,331	2/1	20	142143326.52	43,502
8/3	9	42686972.87	50,834	2/1	21	137847611.39	35,106
8/3	10	55383813.73	35,575	2/1	22	129107977.97	21,429
8/3	11	63419111.12	27,257	2/1	23	113400011.75	5,345
8/3	12	72176428.52	19,708	2/1	24	108896327.86	2,488
8/3	13	77810453.00	15,445	2/2	1	99161278.10	7,368
8/3	14	85407503.95	10,682	2/2	2	92508649.54	14,281
8/3	15	91755393.48	7,337	2/2	3	89490693.54	18,077
8/3	16	98098937.41	4,707	2/2	4	90830001.61	16,379
8/3	17	102222805.92	3,246	2/2	5	95501430.86	10,920
8/3	18	101696314.57	3,576	2/2	6	106653851.81	2,284
8/3	19	95392765.08	5,839	2/2	7	131446485.53	6,559
8/3	20	90908162.88	7,924	2/2	8	153939701.45	37,723
8/3	21	92798088.25	6,999	2/2	9	161080633.73	53,379
8/3	22	81269722.28	13,253	2/2	10	160669799.97	52,099

8/3	23	60172745.77	30,433	2/2	11	157730281.61	45,532
8/3	24	46749924.42	45,610	2/2	12	153558989.70	37,066
8/4	1	36009431.99	71,205	2/2	13	145249015.86	22,708
8/4	2	31296550.04	78,371	2/2	14	138815990.66	13,681
8/4	3	28968496.93	81,931	2/2	15	138909743.17	14,068
8/4	4	29375488.36	81,287	2/2	16	134991768.99	9,651
8/4	5	35091958.46	72,668	2/2	17	134106747.65	8,875
8/4	6	43843388.36	59,844	2/2	18	143390168.91	20,139
8/4	7	59369376.02	39,943	2/2	19	151527820.58	33,083
8/4	8	82412228.04	18,117	2/2	20	156900784.23	43,808
8/4	9	109090040.38	4,087	2/2	21	156638666.64	43,528
8/4	10	128983992.81	184	2/2	22	142054963.63	17,867
8/4	11	140496717.90	282	2/2	23	124098933.50	1,932
8/4	12	156695394.68	2,801	2/2	24	109629945.53	1,044
8/4	13	174679466.29	9,213	2/3	1	102865893.92	89
8/4	14	180474922.55	11,918	2/3	2	93154898.99	3,614
8/4	15	187280324.67	15,362	2/3	3	87541113.73	7,543
8/4	16	192328730.08	18,293	2/3	4	85709780.44	9,044
8/4	17	190377967.03	17,410	2/3	5	90156802.02	5,584
8/4	18	191806665.51	18,000	2/3	6	103792966.73	80
8/4	19	173872741.93	8,868	2/3	7	116889736.25	3,581
8/4	20	156445454.50	2,862	2/3	8	138817358.99	28,834
8/4	21	155487163.27	2,582	2/3	9	139451935.88	30,296
8/4	22	130158460.81	107	2/3	10	137268516.83	26,583
8/4	23	89976421.89	12,994	2/3	11	133170126.58	20,292
8/4	24	69426567.83	29,325	2/3	12	129200860.71	14,738
8/5	1	55519150.70	44,372	2/3	13	124385701.13	9,447
8/5	2	44870914.40	58,376	2/3	14	122264639.07	7,373
8/5	3	40334786.36	64,879	2/3	15	120207364.95	5,736
8/5	4	39021397.07	66,718	2/3	16	119364472.93	5,373
8/5	5	47868790.27	54,194	2/3	17	120368429.73	6,013
8/5	6	60164875.91	38,974	2/3	18	128194713.36	13,751
8/5	7	73432106.09	25,491	2/3	19	136201947.50	24,745
8/5	8	98264752.14	8,326	2/3	20	141728989.83	34,427
8/5	9	116354425.90	1,967	2/3	21	137301774.00	26,403
8/5	10	140127167.99	373	2/3	22	124810409.38	9,991
8/5	11	151928262.86	1,904	2/3	23	112030284.88	1,126
8/5	12	167697760.07	6,315	2/3	24	107555238.05	214
8/5	13	179909438.25	11,587	2/4	1	87622139.21	3,866
8/5	14	189053493.97	16,432	2/4	2	79594595.94	9,601
8/5	15	197570518.72	21,535	2/4	3	75826625.52	13,352
8/5	16	201367501.58	24,132	2/4	4	74999460.95	14,150
8/5	17	199637975.91	23,155	2/4	5	78598448.04	10,701
8/5	18	188705065.91	16,268	2/4	6	91004039.53	1,907
8/5	19	172224191.69	8,009	2/4	7	107394200.46	1,273
8/5	20	155524284.96	2,770	2/4	8	134884514.06	29,956

8/5	21	156156330.45	2,749	2/4	9	131987345.73	25,389
8/5	22	131790184.70	86	2/4	10	131970192.87	25,484
8/5	23	101836374.93	6,653	2/4	11	127779786.93	18,886
8/5	24	76642493.33	22,682	2/4	12	125115499.26	15,656
8/6	1	60188487.71	43,323	2/4	13	121638284.22	11,319
8/6	2	46995069.11	60,549	2/4	14	118611959.67	8,335
8/6	3	41397585.07	68,674	2/4	15	115494532.06	5,911
8/6	4	40560311.28	69,984	2/4	16	112398331.09	3,847
8/6	5	48124523.49	58,866	2/4	17	113605972.64	4,442
8/6	6	62439483.28	40,642	2/4	18	120163577.25	10,123
8/6	7	74538030.44	27,899	2/4	19	132541717.54	26,098
8/6	8	100132339.37	9,484	2/4	20	137132833.40	34,322
8/6	9	119452868.12	2,251	2/4	21	131997242.34	25,334
8/6	10	137740088.01	106	2/4	22	124869355.84	15,296
8/6	11	154856329.95	1,639	2/4	23	107958878.05	1,513
8/6	12	166333868.86	4,436	2/4	24	98806784.50	-85
8/6	13	182808046.33	10,686	2/5	1	92143436.36	960
8/6	14	190607383.15	14,530	2/5	2	83551061.94	4,992
8/6	15	198139182.58	19,038	2/5	3	80750695.42	6,916
8/6	16	200294643.17	20,224	2/5	4	79234887.01	8,344
8/6	17	196761940.47	18,064	2/5	5	80904575.16	6,966
8/6	18	185108093.49	11,994	2/5	6	94783697.91	255
8/6	19	162817468.60	3,234	2/5	7	108386506.19	2,292
8/6	20	148316422.56	564	2/5	8	136698618.69	36,337
8/6	21	152134981.27	1,172	2/5	9	133208643.05	29,998
8/6	22	122190976.86	1,577	2/5	10	131059447.18	26,638
8/6	23	93126153.59	13,478	2/5	11	125884717.44	18,843
8/6	24	70161339.77	32,226	2/5	12	122025665.48	14,000
8/7	1	43728619.96	49,081	2/5	13	118556376.80	9,886
8/7	2	36605171.10	58,557	2/5	14	116531057.68	8,110
8/7	3	33757853.72	62,507	2/5	15	114318843.43	6,213
8/7	4	32790852.24	63,933	2/5	16	112311964.74	4,714
8/7	5	37996312.34	56,730	2/5	17	112240909.93	4,745
8/7	6	49166050.06	42,332	2/5	18	119038310.19	10,424
8/7	7	58245808.55	32,118	2/5	19	130149316.79	25,124
8/7	8	80341072.09	13,666	2/5	20	129383518.69	23,806
8/7	9	96450797.98	5,246	2/5	21	125737482.82	18,332
8/7	10	109128007.18	1,440	2/5	22	117768028.42	9,088
8/7	11	118064889.72	179	2/5	23	104902639.97	1,090
8/7	12	124417312.61	120	2/5	24	96105411.58	-23
8/7	13	133931312.79	527	2/6	1	90047039.79	4,729
8/7	14	142948060.56	2,031	2/6	2	81330695.28	12,308
8/7	15	148096250.23	3,412	2/6	3	77351441.71	16,698
8/7	16	151063416.77	4,251	2/6	4	75319234.17	19,077
8/7	17	147744607.24	3,282	2/6	5	77842927.72	16,144
8/7	18	141848474.12	1,718	2/6	6	86071491.28	7,910

8/7	19	130166298.92	187	2/6	7	98816425.78	813
8/7	20	118362289.43	192	2/6	8	130715156.17	17,805
8/7	21	121811935.59	10	2/6	9	127390908.70	13,674
8/7	22	104012888.09	2,793	2/6	10	124899153.60	10,884
8/7	23	77315074.57	15,586	2/6	11	126373838.33	12,434
8/7	24	60626699.04	29,678	2/6	12	125217738.57	11,216
8/8	1	46011363.53	47,065	2/6	13	124133648.71	10,130
8/8	2	38638909.24	56,758	2/6	14	120021808.64	6,338
8/8	3	35678555.24	60,959	2/6	15	118901782.66	5,556
8/8	4	34946274.56	61,946	2/6	16	115192170.76	3,230
8/8	5	40519700.70	54,225	2/6	17	114543875.53	2,823
8/8	6	51786093.30	40,045	2/6	18	119821073.42	6,278
8/8	7	60851953.16	30,202	2/6	19	131813252.78	19,455
8/8	8	79119352.27	14,907	2/6	20	126988766.01	13,312
8/8	9	93797169.60	6,663	2/6	21	119892472.95	6,273
8/8	10	105430919.80	2,524	2/6	22	111273457.04	1,177
8/8	11	116215306.09	613	2/6	23	97285595.23	1,195
8/8	12	120885996.02	62	2/6	24	90059063.83	4,915
8/8	13	128178562.81	-97	2/7	1	82794519.22	102
8/8	14	137383244.65	765	2/7	2	75997631.60	361
8/8	15	139668964.13	1,315	2/7	3	71236301.00	1,267
8/8	16	142437922.98	1,838	2/7	4	69201252.57	1,734
8/8	17	137181668.31	725	2/7	5	69266759.52	1,833
8/8	18	129004110.22	17	2/7	6	73865141.67	577
8/8	19	119633487.97	234	2/7	7	79609265.44	92
8/8	20	109180946.46	1,627	2/7	8	86211724.68	918
8/8	21	112416550.51	1,114	2/7	9	93007133.58	3,548
8/8	22	96362921.13	5,515	2/7	10	99043727.37	7,629
8/8	23	74497812.86	18,333	2/7	11	104736093.88	13,072
8/8	24	58411084.86	32,805	2/7	12	102407348.28	10,676
8/9	1	46139079.96	42,670	2/7	13	98694352.98	7,157
8/9	2	37976936.21	53,085	2/7	14	98014241.84	6,911
8/9	3	33353722.14	59,314	2/7	15	96687351.79	5,942
8/9	4	31230590.58	62,198	2/7	16	94991788.05	4,561
8/9	5	31486330.78	61,856	2/7	17	94412036.41	4,262
8/9	6	32400623.05	60,660	2/7	18	99981545.91	8,251
8/9	7	34509826.28	57,787	2/7	19	112633583.67	23,313
8/9	8	47153666.59	41,532	2/7	20	117466244.98	30,583
8/9	9	63015635.58	24,886	2/7	21	113023115.23	23,611
8/9	10	87565170.21	7,768	2/7	22	106166280.43	14,475
8/9	11	105769729.93	1,509	2/7	23	95122532.44	4,828
8/9	12	115819681.87	151	2/7	24	91719852.24	2,969
8/9	13	125113594.75	224	2/8	1	80697442.87	0
8/9	14	137563282.28	1,639	2/8	2	73241097.28	1,801
8/9	15	144694203.31	3,347	2/8	3	70186877.22	2,875
8/9	16	151718099.89	5,601	2/8	4	68181336.80	3,568

8/9	17	155396613.12	6,982	2/8	5	68648303.32	3,533
8/9	18	157661286.46	7,763	2/8	6	73148746.55	1,588
8/9	19	149669131.04	4,979	2/8	7	81089323.57	138
8/9	20	137214231.86	1,619	2/8	8	87333640.29	498
8/9	21	139459486.58	2,122	2/8	9	88415093.62	723
8/9	22	118047842.14	73	2/8	10	92369786.81	1,678
8/9	23	91878849.31	5,991	2/8	11	91174273.47	1,431
8/9	24	77693714.88	13,544	2/8	12	91969357.83	1,476
8/10	1	61744871.29	33,373	2/8	13	91326515.93	1,480
8/10	2	51627160.14	44,787	2/8	14	92636924.53	2,057
8/10	3	45253150.86	52,968	2/8	15	91026757.81	1,354
8/10	4	41975935.06	57,460	2/8	16	90550530.59	1,010
8/10	5	41844797.40	57,713	2/8	17	94112257.18	2,456
8/10	6	41962056.31	57,543	2/8	18	102799745.97	8,403
8/10	7	42285302.05	57,077	2/8	19	121499615.83	33,189
8/10	8	57330313.21	38,132	2/8	20	128251574.92	46,612
8/10	9	77351890.76	19,141	2/8	21	124446400.28	38,664
8/10	10	103794076.60	4,455	2/8	22	112731317.50	19,363
8/10	11	124004921.97	182	2/8	23	100473985.06	6,320
8/10	12	149058993.82	2,084	2/8	24	94955348.55	2,776
8/10	13	167641326.20	8,358	2/9	1	89787802.50	4,799
8/10	14	185050024.18	16,936	2/9	2	88237723.73	5,947
8/10	15	196440231.47	23,892	2/9	3	84173135.87	9,247
8/10	16	204856163.45	30,154	2/9	4	84332160.59	9,258
8/10	17	208114193.46	32,272	2/9	5	88058638.21	5,988
8/10	18	208888121.47	33,124	2/9	6	100733892.37	203
8/10	19	199799774.03	26,204	2/9	7	118299473.74	5,206
8/10	20	188227584.44	18,597	2/9	8	138889209.53	31,379
8/10	21	183542311.31	16,061	2/9	9	146584394.37	46,402
8/10	22	158961583.74	5,067	2/9	10	141879746.51	36,741
8/10	23	123930506.28	242	2/9	11	140670703.79	34,172
8/10	24	95438728.20	7,940	2/9	12	139312644.00	32,048
8/11	1	78287727.53	22,875	2/9	13	133805341.91	22,640
8/11	2	65394781.58	35,041	2/9	14	133043344.55	21,707
8/11	3	57914443.49	43,583	2/9	15	129185268.64	16,246
8/11	4	56795002.80	44,927	2/9	16	128945711.06	15,803
8/11	5	66746495.03	33,662	2/9	17	129181370.84	16,267
8/11	6	81027552.28	20,484	2/9	18	134712364.26	24,238
8/11	7	101955206.69	7,653	2/9	19	148521746.19	50,619
8/11	8	128696755.16	186	2/9	20	152155444.98	59,034
8/11	9	148532520.55	904	2/9	21	145956386.91	44,971
8/11	10	179437393.52	10,207	2/9	22	130490571.39	17,963
8/11	11	208965260.68	27,847	2/9	23	117224977.14	4,327
8/11	12	222345170.05	37,852	2/9	24	113044948.19	2,281
8/11	13	242995993.89	56,065	2/10	1	104949620.27	9,101
8/11	14	254052868.53	67,427	2/10	2	100604692.19	13,851

8/11	15	261691884.71	75,226	2/10	3	96159499.96	19,809
8/11	16	261642209.76	75,413	2/10	4	94428624.54	22,231
8/11	17	255643255.13	69,069	2/10	5	97938114.07	17,200
8/11	18	242673638.66	55,831	2/10	6	113572811.34	2,391
8/11	19	220970999.01	36,899	2/10	7	132984297.80	2,636
8/11	20	200942148.97	22,222	2/10	8	154372045.04	25,767
8/11	21	195061022.04	18,806	2/10	9	156863426.27	30,225
8/11	22	159658122.87	3,225	2/10	10	153480281.11	24,376
8/11	23	119259564.83	1,818	2/10	11	151149959.69	20,740
8/11	24	91597564.64	13,084	2/10	12	147614415.85	15,859
8/12	1	68627289.93	34,724	2/10	13	144551864.72	12,206
8/12	2	51980448.21	54,812	2/10	14	144670238.27	12,478
8/12	3	44820267.25	64,862	2/10	15	142993485.22	10,587
8/12	4	44417775.34	65,491	2/10	16	140436687.34	7,984
8/12	5	50824812.96	56,321	2/10	17	142661775.18	10,135
8/12	6	65374092.30	38,314	2/10	18	149006430.12	17,980
8/12	7	82191532.76	21,982	2/10	19	163296067.99	42,657
8/12	8	108227432.74	6,302	2/10	20	168306074.32	53,432
8/12	9	123220136.65	1,733	2/10	21	157116090.82	30,482
8/12	10	144958007.44	233	2/10	22	143758876.13	11,441
8/12	11	163412221.14	3,194	2/10	23	131820503.35	1,913
8/12	12	182025999.85	9,968	2/10	24	123314975.96	-41
8/12	13	192842281.40	15,153	2/11	1	106198434.27	3,550
8/12	14	199812223.95	18,972	2/11	2	98849639.81	9,352
8/12	15	205200426.01	22,320	2/11	3	93246824.42	15,642
8/12	16	206306685.63	23,391	2/11	4	92448389.17	16,789
8/12	17	200836804.55	19,802	2/11	5	97202993.89	11,034
8/12	18	188909113.45	12,976	2/11	6	108642061.92	2,228
8/12	19	173681328.78	6,599	2/11	7	133296331.11	6,651
8/12	20	161221556.12	2,503	2/11	8	157650789.10	41,753
8/12	21	156429050.57	1,673	2/11	9	167263102.46	64,108
8/12	22	126863043.64	962	2/11	10	164700025.35	57,754
8/12	23	93673409.18	13,807	2/11	11	161785369.54	50,899
8/12	24	70011599.07	33,393	2/11	12	157519614.58	41,880
8/13	1	61023276.24	39,987	2/11	13	148216706.24	24,791
8/13	2	47657748.10	56,873	2/11	14	144602587.70	19,273
8/13	3	42043351.75	64,872	2/11	15	144319548.31	18,883
8/13	4	41001002.44	66,319	2/11	16	141153427.00	14,427
8/13	5	45734544.03	59,497	2/11	17	140833783.58	14,305
8/13	6	59223637.72	42,086	2/11	18	146806507.81	22,461
8/13	7	69309072.53	31,120	2/11	19	163499952.31	54,650
8/13	8	84901735.00	17,523	2/11	20	170138173.83	71,253
8/13	9	104386298.22	6,584	2/11	21	166217002.96	61,145
8/13	10	125395053.46	689	2/11	22	150312939.89	28,213
8/13	11	142708530.16	337	2/11	23	132510617.90	5,956
8/13	12	154700204.41	2,138	2/11	24	121192836.53	281

8/13	13	169740085.51	6,285	2/12	1	111298547.35	481
8/13	14	178491880.69	9,977	2/12	2	105311427.58	2,564
8/13	15	188292334.42	14,725	2/12	3	101750462.08	4,822
8/13	16	193855811.93	18,016	2/12	4	100991562.83	5,348
8/13	17	191512374.81	16,684	2/12	5	105034670.76	2,694
8/13	18	182328870.89	11,595	2/12	6	117645912.03	37
8/13	19	166376734.51	5,053	2/12	7	137632625.04	13,217
8/13	20	152137904.53	1,578	2/12	8	165917317.76	66,331
8/13	21	148454957.67	919	2/12	9	172595250.43	84,773
8/13	22	119578175.31	1,697	2/12	10	166283219.71	67,452
8/13	23	92864659.07	12,345	2/12	11	163662421.41	60,728
8/13	24	71753102.33	28,703	2/12	12	157190899.79	45,902
8/14	1	59112190.60	50,862	2/12	13	144845813.14	22,972
8/14	2	46131341.69	69,013	2/12	14	139059704.99	14,988
8/14	3	41223492.17	76,576	2/12	15	137035201.15	12,437
8/14	4	39053782.53	80,061	2/12	16	131301824.97	6,680
8/14	5	47260032.03	67,304	2/12	17	131908192.06	7,520
8/14	6	63022222.29	45,915	2/12	18	141483996.17	18,094
8/14	7	72711010.39	34,864	2/12	19	156326181.43	44,365
8/14	8	93591997.78	16,727	2/12	20	165516272.12	65,398
8/14	9	110649265.21	7,235	2/12	21	160142911.02	52,373
8/14	10	134039355.77	723	2/12	22	146210481.83	25,471
8/14	11	153727538.44	337	2/12	23	127571721.05	4,015
8/14	12	170225320.41	3,528	2/12	24	121176085.33	984
8/14	13	191305444.41	11,495	2/13	1	106835618.69	-9
8/14	14	203755513.73	17,989	2/13	2	101392598.76	1,038
8/14	15	209949662.97	21,766	2/13	3	94199169.07	4,814
8/14	16	215717652.47	25,545	2/13	4	94422922.14	4,580
8/14	17	209782908.45	22,007	2/13	5	97174412.89	3,027
8/14	18	202024672.49	17,100	2/13	6	107094780.49	111
8/14	19	180057083.83	6,874	2/13	7	125783998.10	8,109
8/14	20	162135508.27	1,586	2/13	8	147720279.49	40,772
8/14	21	157556335.52	970	2/13	9	148766822.51	42,612
8/14	22	132141793.73	861	2/13	10	145606994.66	36,434
8/14	23	105563990.63	9,643	2/13	11	143227761.77	31,897
8/14	24	79554264.86	28,244	2/13	12	135375707.60	19,495
8/15	1	65128965.69	50,111	2/13	13	129257393.33	11,626
8/15	2	52993619.07	66,781	2/13	14	124558370.23	7,141
8/15	3	46844679.35	76,163	2/13	15	121696148.19	4,749
8/15	4	44663734.33	79,623	2/13	16	117048193.62	2,289
8/15	5	52611901.62	67,369	2/13	17	114499200.97	1,073
8/15	6	67353801.53	47,273	2/13	18	119690048.83	3,595
8/15	7	74738476.67	38,694	2/13	19	132845711.64	16,043
8/15	8	98728608.06	17,267	2/13	20	138364291.97	23,883
8/15	9	120342500.77	5,568	2/13	21	131654471.43	14,563
8/15	10	145183996.96	190	2/13	22	122207204.77	5,040

8/15	11	173107197.61	2,809	2/13	23	107123730.32	-49
8/15	12	194474314.67	9,859	2/13	24	98561160.71	2,303
8/15	13	213941236.50	19,664	2/14	1	92585803.62	1,082
8/15	14	221716736.76	24,896	2/14	2	86355039.08	3,780
8/15	15	226125237.40	27,575	2/14	3	82593327.99	6,111
8/15	16	232090728.97	31,921	2/14	4	80638662.93	7,560
8/15	17	228175345.63	28,997	2/14	5	82569792.34	6,003
8/15	18	217186259.83	21,832	2/14	6	90491694.18	1,607
8/15	19	188412505.15	7,508	2/14	7	98333589.77	140
8/15	20	169473749.72	1,901	2/14	8	100421411.33	-76
8/15	21	165889315.15	1,167	2/14	9	104714311.67	666
8/15	22	137537455.14	1,149	2/14	10	108189691.81	2,122
8/15	23	109623018.92	10,594	2/14	11	111751455.01	4,227
8/15	24	82613572.50	30,528	2/14	12	109546270.10	2,925
8/16	1	63516860.36	30,618	2/14	13	103893444.76	703
8/16	2	50229631.72	45,398	2/14	14	101200656.19	209
8/16	3	44032856.00	53,440	2/14	15	97200876.57	-12
8/16	4	40150200.31	58,753	2/14	16	94438474.74	616
8/16	5	40488980.23	58,274	2/14	17	94735883.64	338
8/16	6	43459691.72	54,243	2/14	18	100143155.22	-48
8/16	7	44210904.08	53,210	2/14	19	116398415.09	7,639
8/16	8	58226773.98	36,176	2/14	20	121869236.08	13,045
8/16	9	74590511.63	20,629	2/14	21	117811185.86	8,783
8/16	10	97330093.80	6,638	2/14	22	111866792.41	3,936
8/16	11	117994884.19	701	2/14	23	103182173.02	489
8/16	12	135945675.29	264	2/14	24	94199686.58	553
8/16	13	145837256.51	1,670	2/15	1	89043624.97	8,803
8/16	14	159535578.65	5,430	2/15	2	84726592.98	13,265
8/16	15	170062144.88	9,639	2/15	3	82735586.00	15,512
8/16	16	177256090.73	13,337	2/15	4	80025864.14	18,887
8/16	17	180904221.06	15,138	2/15	5	81923048.35	16,546
8/16	18	173658819.57	11,295	2/15	6	86273401.73	11,600
8/16	19	158810779.93	5,404	2/15	7	92013618.49	6,258
8/16	20	144110693.49	1,498	2/15	8	90864790.00	7,353
8/16	21	138032175.09	542	2/15	9	94055898.81	4,798
8/16	22	117556660.78	824	2/15	10	101669521.96	901
8/16	23	97116211.05	6,741	2/15	11	101769062.98	921
8/16	24	76850125.44	18,833	2/15	12	100966536.06	1,106
8/17	1	56138779.93	41,388	2/15	13	100504345.93	1,418
8/17	2	43891148.05	56,997	2/15	14	98496483.50	2,353
8/17	3	38487922.32	64,721	2/15	15	93892648.58	4,951
8/17	4	35593996.49	68,904	2/15	16	91910367.46	6,346
8/17	5	35003836.07	69,790	2/15	17	93993881.00	4,891
8/17	6	36322444.36	67,811	2/15	18	106304535.24	144
8/17	7	38052058.34	65,367	2/15	19	127912612.83	10,177
8/17	8	48598758.89	50,684	2/15	20	134738477.97	18,482

8/17	9	69067475.27	27,689	2/15	21	132821188.08	15,829
8/17	10	91270352.07	11,045	2/15	22	126186585.10	8,429
8/17	11	109121103.41	3,240	2/15	23	117271020.80	2,186
8/17	12	130612323.38	41	2/15	24	104758437.99	190
8/17	13	138033537.84	248	2/16	1	90081612.02	24,715
8/17	14	150515172.95	1,913	2/16	2	83004566.83	37,133
8/17	15	161202507.36	4,928	2/16	3	81159031.12	40,613
8/17	16	167917355.16	7,430	2/16	4	81098615.42	40,775
8/17	17	173903317.75	9,853	2/16	5	85549371.91	32,398
8/17	18	169666556.23	8,060	2/16	6	96427112.91	15,701
8/17	19	154932584.08	3,233	2/16	7	124731211.84	602
8/17	20	143466518.02	958	2/16	8	146448540.53	17,848
8/17	21	145731657.79	1,253	2/16	9	150326705.82	23,507
8/17	22	124650151.07	219	2/16	10	154622553.85	30,831
8/17	23	98510912.95	7,297	2/16	11	154174947.46	30,069
8/17	24	76919426.05	20,737	2/16	12	149257127.64	21,773
8/18	1	60847419.51	49,273	2/16	13	145540444.68	16,541
8/18	2	49093503.55	65,451	2/16	14	142132887.89	12,588
8/18	3	46047518.82	69,912	2/16	15	139603005.80	9,689
8/18	4	44245134.12	72,685	2/16	16	135786691.63	6,256
8/18	5	51859462.14	61,353	2/16	17	135735522.01	6,120
8/18	6	65548108.46	43,488	2/16	18	142656890.97	12,970
8/18	7	80396002.04	27,928	2/16	19	162617264.39	46,525
8/18	8	104401343.84	10,512	2/16	20	168287212.40	59,570
8/18	9	129004759.21	1,489	2/16	21	162810562.06	46,662
8/18	10	154746808.22	438	2/16	22	146278673.13	17,342
8/18	11	179386370.65	6,426	2/16	23	130306135.55	2,455
8/18	12	204864312.22	18,514	2/16	24	115540684.83	552
8/18	13	226527963.92	32,723	2/17	1	104440915.69	10,312
8/18	14	234385024.19	38,980	2/17	2	95236714.03	22,116
8/18	15	238035522.52	42,268	2/17	3	89235597.22	32,133
8/18	16	244639144.76	47,544	2/17	4	89043624.97	32,462
8/18	17	243360677.46	46,640	2/17	5	92198967.35	26,974
8/18	18	231000996.02	36,329	2/17	6	107018175.79	7,595
8/18	19	203562572.64	17,515	2/17	7	130288486.65	1,153
8/18	20	189295445.15	10,399	2/17	8	156541666.11	28,235
8/18	21	178223096.40	6,079	2/17	9	154844487.07	25,808
8/18	22	147978730.23	-50	2/17	10	153998673.02	24,184
8/18	23	110368855.02	7,584	2/17	11	148843783.27	16,583
8/18	24	83808626.68	24,916	2/17	12	149294614.26	17,519
8/19	1	73352979.81	37,881	2/17	13	141278104.68	8,112
8/19	2	58718343.37	55,764	2/17	14	135649372.99	3,862
8/19	3	52986095.19	63,847	2/17	15	132451741.49	2,071
8/19	4	51850371.12	65,438	2/17	16	128435206.58	427
8/19	5	58632959.08	55,923	2/17	17	129581336.62	863
8/19	6	74722269.02	36,496	2/17	18	134555758.50	2,936

8/19	7	86136007.34	25,388	2/17	19	153640671.37	23,553
8/19	8	107851020.16	10,295	2/17	20	158330404.14	31,436
8/19	9	121826881.67	4,215	2/17	21	147939333.07	15,674
8/19	10	142714811.52	239	2/17	22	136957944.45	4,595
8/19	11	157536850.18	542	2/17	23	123839107.31	-146
8/19	12	170681382.53	2,639	2/17	24	114799058.60	2,196
8/19	13	180322074.56	5,360	2/18	1	100680134.93	2,042
8/19	14	187501100.86	8,087	2/18	2	95028758.39	5,503
8/19	15	192337382.13	9,954	2/18	3	88787463.52	10,966
8/19	16	196482401.22	12,038	2/18	4	87458179.93	12,358
8/19	17	193664450.95	10,822	2/18	5	92121027.01	7,717
8/19	18	175209608.33	3,993	2/18	6	103107594.05	1,262
8/19	19	157450685.79	583	2/18	7	120205514.53	2,797
8/19	20	149232620.83	82	2/18	8	144660371.14	31,851
8/19	21	146320593.73	9	2/18	9	151973533.68	46,378
8/19	22	123237090.81	3,881	2/18	10	149394130.82	40,726
8/19	23	96097011.47	17,477	2/18	11	143595467.34	29,545
8/19	24	73519086.09	37,727	2/18	12	141066891.90	25,442
8/20	1	54949382.58	60,704	2/18	13	133127634.96	14,241
8/20	2	43783741.38	77,542	2/18	14	130795760.15	11,694
8/20	3	40209324.89	83,249	2/18	15	128426149.88	8,989
8/20	4	39728072.67	84,056	2/18	16	124507753.36	5,676
8/20	5	44205801.24	76,863	2/18	17	124953690.43	6,009
8/20	6	58711715.53	55,560	2/18	18	130011559.24	10,846
8/20	7	68926445.05	42,628	2/18	19	143330650.91	29,467
8/20	8	89792302.03	22,119	2/18	20	153912432.61	50,423
8/20	9	105112490.62	11,793	2/18	21	148188736.95	38,188
8/20	10	121305795.51	4,423	2/18	22	135304498.86	17,186
8/20	11	138937809.35	448	2/18	23	123670304.56	5,154
8/20	12	150903515.42	88	2/18	24	110209429.97	0
8/20	13	159964779.92	771	2/19	1	97847667.92	926
8/20	14	169963185.53	2,545	2/19	2	88848477.03	5,777
8/20	15	175650116.15	4,023	2/19	3	83542517.92	10,374
8/20	16	178332050.00	4,863	2/19	4	82950720.37	11,062
8/20	17	176384712.17	4,219	2/19	5	88077373.18	6,505
8/20	18	166245824.38	1,872	2/19	6	99847104.95	576
8/20	19	156323200.44	197	2/19	7	116692787.46	3,992
8/20	20	145783387.19	-116	2/19	8	137566001.13	28,039
8/20	21	141742879.63	281	2/19	9	138384769.71	29,430
8/20	22	118158073.88	5,595	2/19	10	137551047.94	28,120
8/20	23	86730409.71	24,670	2/19	11	133141576.45	20,989
8/20	24	67781562.18	44,113	2/19	12	130320517.41	16,973
8/21	1	59756290.49	64,323	2/19	13	121867367.28	7,788
8/21	2	48882780.03	81,009	2/19	14	121382799.99	7,278
8/21	3	43889655.00	89,266	2/19	15	119457166.31	5,772
8/21	4	43193727.46	90,483	2/19	16	115658224.52	3,068

8/21	5	51240877.49	77,243	2/19	17	115647426.47	3,129
8/21	6	65841941.81	55,930	2/19	18	121097315.02	7,270
8/21	7	83011653.76	35,587	2/19	19	133056616.08	20,993
8/21	8	98666527.02	21,451	2/19	20	143783434.07	39,497
8/21	9	116578111.62	10,010	2/19	21	135849325.98	25,387
8/21	10	131510304.12	3,984	2/19	22	127442366.72	13,539
8/21	11	145616200.10	736	2/19	23	115909183.45	3,518
8/21	12	153277391.18	-11	2/19	24	106742725.52	304
8/21	13	161331308.47	109	2/20	1	98259417.34	140
8/21	14	169170636.08	749	2/20	2	89630920.51	718
8/21	15	174161757.46	1,639	2/20	3	84035298.53	2,730
8/21	16	178930098.84	2,377	2/20	4	83704961.91	2,878
8/21	17	175869857.60	1,911	2/20	5	88009349.37	1,103
8/21	18	160627238.21	162	2/20	6	97874795.45	163
8/21	19	145232759.17	912	2/20	7	114189207.83	8,668
8/21	20	139182363.07	1,941	2/20	8	134597908.69	37,811
8/21	21	135920741.03	2,692	2/20	9	135211833.57	38,931
8/21	22	113122863.50	11,826	2/20	10	133160166.73	35,356
8/21	23	84812452.01	33,786	2/20	11	127819753.21	25,879
8/21	24	70067620.29	50,402	2/20	12	122157901.69	17,700
8/22	1	53989381.86	56,597	2/20	13	113050259.37	7,740
8/22	2	43111720.45	72,382	2/20	14	112813791.07	7,540
8/22	3	38965728.35	78,836	2/20	15	110457044.81	5,393
8/22	4	38885753.46	78,955	2/20	16	107066403.78	3,219
8/22	5	45715168.64	68,491	2/20	17	105005009.36	2,366
8/22	6	59638908.97	49,124	2/20	18	107543282.30	3,721
8/22	7	73447246.54	33,224	2/20	19	115329210.42	9,708
8/22	8	92424395.04	16,884	2/20	20	122448934.47	17,794
8/22	9	105717424.57	8,934	2/20	21	114719120.87	9,205
8/22	10	116259257.41	4,464	2/20	22	108526836.30	4,246
8/22	11	126241526.07	1,707	2/20	23	97052218.01	-78
8/22	12	130070958.38	1,193	2/20	24	90486666.71	491
8/22	13	136445728.11	421	2/21	1	81086536.17	116
8/22	14	139915819.65	-71	2/21	2	74110428.60	663
8/22	15	140402195.37	202	2/21	3	70742395.11	1,353
8/22	16	138781101.73	152	2/21	4	65984807.98	2,878
8/22	17	130046804.73	1,014	2/21	5	65654194.48	3,077
8/22	18	120457359.54	3,175	2/21	6	68699414.02	1,980
8/22	19	106451961.50	8,565	2/21	7	72475924.32	962
8/22	20	98459080.89	13,036	2/21	8	76906009.52	150
8/22	21	95243495.03	15,048	2/21	9	80937046.61	180
8/22	22	77011150.79	29,691	2/21	10	86602720.35	976
8/22	23	54630591.75	55,667	2/21	11	90380633.87	2,138
8/22	24	43429160.09	71,924	2/21	12	86395878.60	667
8/23	1	36519821.09	48,540	2/21	13	82052291.73	-49
8/23	2	29362966.44	57,899	2/21	14	79747804.74	85

8/23	3	27151699.82	60,779	2/21	15	76565348.45	74
8/23	4	25995374.67	62,248	2/21	16	74074294.66	619
8/23	5	26761949.16	61,236	2/21	17	72753968.46	757
8/23	6	27145572.13	60,823	2/21	18	78882270.49	80
8/23	7	28075043.36	59,540	2/21	19	91199550.25	2,408
8/23	8	36036629.39	49,090	2/21	20	97112508.14	6,152
8/23	9	44709109.47	38,673	2/21	21	94409444.71	4,215
8/23	10	54493328.74	28,124	2/21	22	88104001.49	1,199
8/23	11	60988832.50	22,205	2/21	23	79320360.29	-121
8/23	12	62218456.62	21,104	2/21	24	69404137.17	1,748
8/23	13	62731331.02	20,609	2/22	1	64242636.77	14,439
8/23	14	62365232.28	21,018	2/22	2	61295532.49	17,073
8/23	15	62586248.50	20,888	2/22	3	58948441.87	19,041
8/23	16	63251127.08	20,300	2/22	4	56976040.63	20,727
8/23	17	64649380.53	19,231	2/22	5	55007679.74	22,391
8/23	18	62184295.96	21,110	2/22	6	57196507.85	20,520
8/23	19	56924170.32	25,877	2/22	7	62241493.91	16,296
8/23	20	55974246.98	26,685	2/22	8	63691989.08	14,930
8/23	21	58796076.61	24,081	2/22	9	69882538.73	9,916
8/23	22	52072587.47	30,644	2/22	10	77028609.78	4,860
8/23	23	41799228.46	42,006	2/22	11	78315361.60	3,968
8/23	24	36481120.56	48,512	2/22	12	77951247.26	4,186
8/24	1	28782064.82	65,783	2/22	13	77074285.21	4,828
8/24	2	25088080.11	70,865	2/22	14	75662526.02	5,632
8/24	3	23792192.28	72,630	2/22	15	72510637.93	7,894
8/24	4	22938409.71	73,766	2/22	16	70933331.85	9,092
8/24	5	24235145.97	72,046	2/22	17	73591409.46	7,103
8/24	6	24625850.79	71,525	2/22	18	82017625.12	2,320
8/24	7	25108248.16	70,836	2/22	19	101581524.89	2,118
8/24	8	26945807.75	68,357	2/22	20	109217209.03	6,836
8/24	9	35339653.08	56,761	2/22	21	105344516.59	4,121
8/24	10	41998205.78	48,037	2/22	22	96721631.35	392
8/24	11	49105805.12	39,382	2/22	23	86718219.76	657
8/24	12	53715355.47	34,261	2/22	24	78729806.29	3,705
8/24	13	53433730.04	34,595	2/23	1	67940532.70	11,542
8/24	14	55453749.37	32,459	2/23	2	62065031.58	16,442
8/24	15	58729022.70	28,985	2/23	3	59624015.27	18,708
8/24	16	63378641.19	24,623	2/23	4	60347572.51	18,004
8/24	17	66190092.28	22,125	2/23	5	63645930.52	15,084
8/24	18	66433659.25	21,905	2/23	6	73773526.96	6,975
8/24	19	63302032.79	24,686	2/23	7	93015338.34	31
8/24	20	63465440.87	24,499	2/23	8	115106655.27	12,256
8/24	21	65057975.18	23,179	2/23	9	119639020.24	17,859
8/24	22	57497705.32	30,343	2/23	10	121735357.62	20,799
8/24	23	45726239.57	43,406	2/23	11	122908981.05	22,611
8/24	24	38668885.13	52,287	2/23	12	120934309.48	19,623

8/25	1	32783832.73	76,792	2/23	13	115888155.11	13,114
8/25	2	28920038.49	82,670	2/23	14	110749245.16	7,898
8/25	3	27825179.61	84,256	2/23	15	109628213.85	7,078
8/25	4	27846262.99	84,226	2/23	16	107283907.54	5,245
8/25	5	31151898.03	79,248	2/23	17	107989708.84	5,609
8/25	6	38579279.77	67,997	2/23	18	108958380.85	6,389
8/25	7	50304041.74	51,600	2/23	19	121629575.23	20,512
8/25	8	69084032.00	29,924	2/23	20	129388071.26	33,086
8/25	9	85358324.05	16,323	2/23	21	125908312.00	27,099
8/25	10	100312532.92	7,540	2/23	22	116485826.39	13,833
8/25	11	111257704.74	3,433	2/23	23	101957398.08	2,307
8/25	12	121052054.28	1,168	2/23	24	93422125.64	74
8/25	13	130701398.09	11	2/24	1	81064703.88	6,525
8/25	14	135148739.89	-100	2/24	2	75304257.33	11,433
8/25	15	139085052.51	5	2/24	3	71250690.83	15,395
8/25	16	144544820.88	609	2/24	4	71118721.42	15,557
8/25	17	141089733.46	100	2/24	5	74427032.94	12,259
8/25	18	137062994.12	135	2/24	6	86433327.05	3,123
8/25	19	126373198.90	294	2/24	7	101112951.53	166
8/25	20	119708496.75	1,339	2/24	8	120710821.56	12,401
8/25	21	115299279.08	2,209	2/24	9	119633487.97	11,418
8/25	22	95790245.22	9,776	2/24	10	121124601.34	13,005
8/25	23	70199857.83	28,877	2/24	11	120135213.89	11,898
8/25	24	54871488.44	45,729	2/24	12	117896318.40	9,395
8/26	1	47030210.01	63,926	2/24	13	116409866.29	8,218
8/26	2	36924799.22	79,254	2/24	14	115011625.29	7,118
8/26	3	33608295.96	84,530	2/24	15	112918713.05	5,192
8/26	4	32771490.70	85,890	2/24	16	108820519.89	2,790
8/26	5	37794558.32	77,914	2/24	17	109948331.92	3,572
8/26	6	54114271.43	53,969	2/24	18	114439654.39	6,487
8/26	7	67779928.91	37,452	2/24	19	128183084.82	22,568
8/26	8	85430654.49	20,676	2/24	20	138943970.77	41,220
8/26	9	100780064.22	10,566	2/24	21	131309712.59	27,519
8/26	10	120838315.60	2,469	2/24	22	122207828.95	14,097
8/26	11	131988665.25	577	2/24	23	111613981.81	4,369
8/26	12	142745523.25	-85	2/24	24	103759119.74	665
8/26	13	151826074.14	794	2/25	1	94215212.70	1,797
8/26	14	162584297.57	2,423	2/25	2	87581374.19	5,745
8/26	15	168983753.05	4,374	2/25	3	82667732.38	9,809
8/26	16	174349520.77	6,008	2/25	4	82747841.62	9,573
8/26	17	169842906.83	4,679	2/25	5	85801194.02	6,974
8/26	18	162901898.99	2,448	2/25	6	95579850.90	1,198
8/26	19	153043866.20	733	2/25	7	116134659.46	4,247
8/26	20	146013849.80	210	2/25	8	132966388.47	23,040
8/26	21	137897991.21	74	2/25	9	137731924.15	30,917
8/26	22	113935001.84	4,808	2/25	10	138887840.70	32,525

8/26	23	82393898.81	23,311	2/25	11	135545777.12	26,850
8/26	24	66049310.79	39,336	2/25	12	132361809.42	21,724
8/27	1	47807471.28	56,965	2/25	13	125562365.22	13,094
8/27	2	39152155.14	69,362	2/25	14	122654080.70	9,994
8/27	3	35320496.16	75,226	2/25	15	119938652.74	7,354
8/27	4	35419426.16	74,983	2/25	16	118320206.36	5,794
8/27	5	42740852.93	64,016	2/25	17	117833680.87	5,417
8/27	6	59796573.85	41,572	2/25	18	121016722.18	8,133
8/27	7	69845397.81	30,802	2/25	19	137563282.28	30,365
8/27	8	84197954.32	18,342	2/25	20	146414413.51	47,668
8/27	9	102046177.62	7,543	2/25	21	145114760.74	45,045
8/27	10	118005230.95	2,015	2/25	22	134628021.79	25,676
8/27	11	127383191.28	447	2/25	23	119015649.84	6,591
8/27	12	137275982.22	56	2/25	24	112285535.61	2,332
8/27	13	144933305.21	284	2/26	1	99421964.87	35
8/27	14	150279615.60	1,059	2/26	2	95052195.66	359
8/27	15	155162991.19	2,099	2/26	3	89527107.41	2,324
8/27	16	157929889.91	2,700	2/26	4	89262477.18	2,532
8/27	17	151003076.03	1,188	2/26	5	94143290.51	719
8/27	18	144438488.86	242	2/26	6	103208146.67	236
8/27	19	136897651.81	-81	2/26	7	116791231.96	7,348
8/27	20	132015717.45	37	2/26	8	138373165.39	37,914
8/27	21	126351459.68	595	2/26	9	142618519.21	46,360
8/27	22	105487053.09	6,040	2/26	10	137996065.62	36,943
8/27	23	74324008.11	26,551	2/26	11	132356520.67	26,865
8/27	24	60208731.71	41,088	2/26	12	128770627.79	21,630
8/28	1	45273606.50	60,160	2/26	13	123058842.17	13,849
8/28	2	38834051.94	69,515	2/26	14	118874857.81	9,558
8/28	3	34274583.62	76,478	2/26	15	118248872.73	8,654
8/28	4	34266587.23	76,523	2/26	16	117349203.66	7,750
8/28	5	40738044.17	66,747	2/26	17	116599833.44	7,251
8/28	6	63994697.17	36,641	2/26	18	117525707.45	7,944
8/28	7	71178339.63	29,175	2/26	19	129481099.03	22,717
8/28	8	80931015.49	20,582	2/26	20	141605413.80	44,496
8/28	9	94670946.44	11,287	2/26	21	140467045.32	41,840
8/28	10	108937119.09	4,706	2/26	22	129890210.77	23,209
8/28	11	117977235.33	2,101	2/26	23	112441826.12	4,059
8/28	12	126107398.19	544	2/26	24	106084517.16	1,127
8/28	13	129945655.59	323	2/27	1	103785752.77	596
8/28	14	133338861.49	-23	2/27	2	96894216.68	-17
8/28	15	135375035.69	100	2/27	3	93379435.18	796
8/28	16	140692808.34	211	2/27	4	91088370.15	1,530
8/28	17	135444926.83	87	2/27	5	93541012.80	711
8/28	18	127463597.52	340	2/27	6	100820273.30	144
8/28	19	116391183.17	2,537	2/27	7	116303823.01	7,168
8/28	20	115031343.84	2,798	2/27	8	132707891.84	28,172

8/28	21	110006186.59	4,456	2/27	9	141760243.25	45,196
8/28	22	93752808.59	11,757	2/27	10	138783837.89	39,175
8/28	23	69040162.90	31,301	2/27	11	136267420.05	34,360
8/28	24	55293486.07	46,816	2/27	12	133482473.67	29,165
8/29	1	44162294.20	52,308	2/27	13	122792443.69	13,923
8/29	2	36787871.27	62,497	2/27	14	115641427.86	6,623
8/29	3	33501972.21	67,236	2/27	15	110908649.88	3,349
8/29	4	32890694.63	68,125	2/27	16	108422005.94	2,088
8/29	5	37749263.49	61,107	2/27	17	104276568.21	770
8/29	6	58583315.42	34,906	2/27	18	107687954.21	1,714
8/29	7	67128891.90	26,485	2/27	19	119190889.08	10,041
8/29	8	78494927.33	16,951	2/27	20	127786877.06	20,188
8/29	9	92044152.02	8,704	2/27	21	120012567.05	10,727
8/29	10	101860461.79	4,527	2/27	22	111795940.51	3,808
8/29	11	108353876.70	2,542	2/27	23	97549622.31	111
8/29	12	114460493.16	1,046	2/27	24	91010097.34	1,714
8/29	13	119879544.90	440	2/28	1	80511026.99	3,505
8/29	14	123750276.24	92	2/28	2	73882084.16	1,031
8/29	15	122768018.53	40	2/28	3	74058626.06	1,056
8/29	16	121204004.92	186	2/28	4	70292027.98	354
8/29	17	116305629.98	800	2/28	5	69384618.43	479
8/29	18	108041678.79	2,474	2/28	6	73430808.45	1,060
8/29	19	99542530.95	5,306	2/28	7	75912979.93	1,863
8/29	20	98199681.81	5,858	2/28	8	80764591.55	3,820
8/29	21	93444247.90	7,923	2/28	9	86082160.71	6,967
8/29	22	80467590.01	15,530	2/28	10	92482601.34	12,569
8/29	23	59075938.10	34,488	2/28	11	93599724.52	13,378
8/29	24	46471465.84	49,347	2/28	12	90091133.59	10,035
8/30	1	34639590.77	50,374	2/28	13	84208456.02	5,683
8/30	2	29288361.92	57,271	2/28	14	79921452.73	3,511
8/30	3	26389490.41	61,056	2/28	15	75658548.35	1,694
8/30	4	25665935.27	62,037	2/28	16	72552224.29	995
8/30	5	26249187.26	61,336	2/28	17	72832199.04	880
8/30	6	29905569.01	56,532	2/28	18	77076972.61	2,216
8/30	7	31795868.19	53,975	2/28	19	88027583.92	8,513
8/30	8	40007551.09	43,627	2/28	20	97939178.50	18,361
8/30	9	50638876.33	31,619	2/28	21	96674169.67	16,784
8/30	10	56209757.37	26,091	2/28	22	90288242.26	10,237
8/30	11	61453293.32	21,351	2/28	23	80455116.55	3,555
8/30	12	61453293.32	21,351	2/28	24	73115969.27	1,084
8/30	13	61647568.21	21,167	3/1	1	67218953.11	1,313
8/30	14	61812858.16	21,166	3/1	2	61566376.18	335
8/30	15	61239720.95	21,660	3/1	3	60514861.87	167
8/30	16	62220376.16	20,693	3/1	4	57754546.87	195
8/30	17	62563890.28	20,422	3/1	5	57429909.04	162
8/30	18	60452418.30	22,302	3/1	6	59575257.14	136

8/30	19	55755055.41	26,478	3/1	7	62922312.63	380
8/30	20	62895225.03	20,237	3/1	8	64891624.02	889
8/30	21	55657560.01	26,522	3/1	9	66757398.83	1,009
8/30	22	48353698.08	34,077	3/1	10	68290473.60	1,479
8/30	23	39262279.57	44,515	3/1	11	68392338.46	1,684
8/30	24	34207156.25	50,822	3/1	12	68588571.51	1,468
8/31	1	27783691.87	55,866	3/1	13	68546575.69	1,464
8/31	2	23145325.12	61,657	3/1	14	69724892.15	1,976
8/31	3	21393832.08	63,878	3/1	15	69030646.78	1,684
8/31	4	20213551.01	65,241	3/1	16	67423332.54	1,348
8/31	5	21185246.06	64,101	3/1	17	69298699.97	1,594
8/31	6	21596006.67	63,596	3/1	18	73258368.41	3,087
8/31	7	23381083.17	61,427	3/1	19	83646037.83	9,093
8/31	8	24678679.73	59,791	3/1	20	95046466.16	20,807
8/31	9	31685203.73	50,869	3/1	21	94624730.68	20,319
8/31	10	36866560.08	44,324	3/1	22	87644737.75	12,665
8/31	11	41995023.73	38,302	3/1	23	81742540.85	7,827
8/31	12	44804202.21	35,171	3/1	24	74957308.24	3,805
8/31	13	44372312.34	35,527	3/2	1	68877278.06	2,254
8/31	14	45163468.98	34,808	3/2	2	64331466.36	5,032
8/31	15	45773620.34	33,982	3/2	3	60235731.34	7,989
8/31	16	46864398.22	32,961	3/2	4	60156257.39	8,084
8/31	17	48813758.36	30,852	3/2	5	65139281.79	4,393
8/31	18	48686542.88	30,975	3/2	6	76605920.58	23
8/31	19	48373231.70	31,256	3/2	7	94370057.08	5,942
8/31	20	58199694.04	21,961	3/2	8	109677863.21	23,651
8/31	21	54659962.66	25,118	3/2	9	115777050.98	33,477
8/31	22	46852816.58	32,861	3/2	10	116196043.53	34,248
8/31	23	37605330.71	43,450	3/2	11	117030041.81	35,867
8/31	24	30024672.04	52,941	3/2	12	114028202.93	30,545
9/1	1	24435517.95	57,867	3/2	13	108504489.29	21,635
9/1	2	22203471.40	60,723	3/2	14	104635029.67	16,538
9/1	3	22690276.17	60,081	3/2	15	100543391.04	11,880
9/1	4	21779893.94	61,152	3/2	16	98675623.35	9,819
9/1	5	26092990.15	55,840	3/2	17	101226814.76	12,390
9/1	6	38287809.12	40,712	3/2	18	103576704.93	15,230
9/1	7	48618685.17	29,470	3/2	19	116875833.25	35,853
9/1	8	59391648.84	19,558	3/2	20	125588462.52	53,458
9/1	9	67982670.06	13,386	3/2	21	123487202.68	48,960
9/1	10	77263912.06	7,900	3/2	22	114311704.77	31,144
9/1	11	81617382.96	5,853	3/2	23	97913102.35	9,199
9/1	12	84490444.47	4,749	3/2	24	92374889.40	4,425
9/1	13	86587133.98	3,872	3/3	1	82699769.37	95
9/1	14	87358636.03	3,665	3/3	2	74571702.81	692
9/1	15	85788130.64	4,277	3/3	3	70243418.32	2,339
9/1	16	85303864.26	4,461	3/3	4	69141174.69	3,015

9/1	17	83810053.91	5,079	3/3	5	72146528.03	1,523
9/1	18	77639220.23	7,626	3/3	6	81880467.64	155
9/1	19	77306545.79	7,891	3/3	7	93153358.89	4,338
9/1	20	84666672.69	4,767	3/3	8	112242671.22	25,515
9/1	21	78430049.99	7,367	3/3	9	117189241.69	33,886
9/1	22	66599620.70	14,100	3/3	10	118556987.50	36,152
9/1	23	47300042.35	30,712	3/3	11	111597025.47	24,518
9/1	24	36324268.39	43,039	3/3	12	110381036.12	22,623
9/2	1	31431822.14	74,929	3/3	13	108657546.70	20,082
9/2	2	26220531.77	82,335	3/3	14	104479383.18	14,590
9/2	3	24564647.68	84,599	3/3	15	101307500.99	11,238
9/2	4	25020472.62	83,988	3/3	16	94989184.89	5,416
9/2	5	29467059.72	77,745	3/3	17	95098040.57	5,462
9/2	6	53175451.59	44,410	3/3	18	99727351.72	9,697
9/2	7	63183557.43	32,661	3/3	19	111768428.24	24,816
9/2	8	72960421.63	22,985	3/3	20	120990692.75	41,042
9/2	9	83924764.75	14,261	3/3	21	121545618.72	42,175
9/2	10	97012568.15	6,771	3/3	22	111958772.40	24,996
9/2	11	103015942.74	4,253	3/3	23	98505568.53	8,449
9/2	12	104516187.71	3,715	3/3	24	94359693.88	5,008
9/2	13	107262313.33	2,905	3/4	1	79337737.30	813
9/2	14	108644929.35	2,452	3/4	2	74447562.87	2,569
9/2	15	108733846.75	2,274	3/4	3	70484188.92	5,116
9/2	16	107244699.32	2,720	3/4	4	70505190.07	4,973
9/2	17	103175542.21	4,224	3/4	5	74139606.22	2,746
9/2	18	97084475.17	6,646	3/4	6	82336110.48	9
9/2	19	93621361.84	8,439	3/4	7	95483662.10	3,017
9/2	20	107517096.85	2,698	3/4	8	112146416.11	18,604
9/2	21	95434549.07	7,532	3/4	9	115087525.20	22,946
9/2	22	74033822.31	22,072	3/4	10	115284914.03	23,104
9/2	23	53825606.47	43,611	3/4	11	111638542.54	18,219
9/2	24	42364136.73	59,040	3/4	12	107486363.26	13,086
9/3	1	32657425.11	79,412	3/4	13	103087160.66	8,361
9/3	2	28188854.07	86,127	3/4	14	99728969.32	5,772
9/3	3	28333054.90	85,947	3/4	15	98328252.28	4,431
9/3	4	28052753.66	86,351	3/4	16	95632156.67	2,791
9/3	5	32413344.49	79,797	3/4	17	94310997.83	2,253
9/3	6	47794452.25	56,844	3/4	18	97576690.32	3,980
9/3	7	60789636.84	39,916	3/4	19	104545749.63	9,635
9/3	8	70401907.87	29,245	3/4	20	116661998.08	25,258
9/3	9	82420688.67	18,325	3/4	21	114022264.92	21,326
9/3	10	91954099.09	11,629	3/4	22	106380771.83	11,655
9/3	11	97561828.78	8,448	3/4	23	95332723.68	2,896
9/3	12	100337984.43	7,119	3/4	24	90318864.55	836
9/3	13	108428305.16	3,758	3/5	1	81466723.10	211
9/3	14	110674254.10	3,050	3/5	2	77538860.05	1,051

9/3	15	111722780.33	2,744	3/5	3	73590109.78	2,847
9/3	16	110342176.00	3,076	3/5	4	73185849.38	2,886
9/3	17	108170824.90	3,981	3/5	5	75975908.20	1,624
9/3	18	103545124.63	5,541	3/5	6	82700240.57	-14
9/3	19	96438691.76	9,106	3/5	7	98138906.44	4,963
9/3	20	108892306.79	3,577	3/5	8	115204134.62	24,134
9/3	21	95641573.90	9,588	3/5	9	123069506.76	37,421
9/3	22	77298915.36	22,719	3/5	10	120501842.18	32,832
9/3	23	56197269.22	45,605	3/5	11	115375315.61	24,462
9/3	24	44277880.68	61,882	3/5	12	112633583.67	20,499
9/4	1	37813599.17	85,624	3/5	13	109093491.51	15,732
9/4	2	32199241.07	94,834	3/5	14	103744695.57	9,655
9/4	3	31242979.57	96,427	3/5	15	100593297.91	6,981
9/4	4	30597671.23	97,457	3/5	16	96631995.59	4,119
9/4	5	36041293.28	88,567	3/5	17	96948624.30	4,322
9/4	6	57592063.26	54,975	3/5	18	100582989.59	6,656
9/4	7	64780103.09	45,428	3/5	19	109588967.68	16,093
9/4	8	73315383.93	35,204	3/5	20	122751110.85	36,861
9/4	9	87450821.68	21,453	3/5	21	121586658.91	34,539
9/4	10	99220359.73	12,701	3/5	22	112938172.59	20,854
9/4	11	106204076.02	8,701	3/5	23	98055784.03	4,738
9/4	12	110811474.80	6,373	3/5	24	89979926.80	847
9/4	13	117401346.41	3,801	3/6	1	84372787.12	693
9/4	14	121947744.33	2,424	3/6	2	77636518.73	3,857
9/4	15	123218880.85	2,283	3/6	3	73432971.20	7,011
9/4	16	123372156.15	2,121	3/6	4	72659914.08	7,659
9/4	17	120094527.05	2,925	3/6	5	75127780.36	5,696
9/4	18	113354476.29	5,459	3/6	6	83280806.62	1,314
9/4	19	105602193.60	8,941	3/6	7	98758052.86	2,111
9/4	20	124340190.77	1,786	3/6	8	108386506.19	8,392
9/4	21	104931721.23	9,291	3/6	9	112010938.09	12,242
9/4	22	86006040.64	22,620	3/6	10	109792811.59	9,963
9/4	23	64242243.92	46,060	3/6	11	106972231.92	7,461
9/4	24	49520168.68	66,888	3/6	12	102731425.26	4,223
9/5	1	39926599.77	75,182	3/6	13	101372410.66	3,314
9/5	2	33934431.42	84,734	3/6	14	95606524.27	802
9/5	3	31612288.98	88,403	3/6	15	90447961.89	-114
9/5	4	31312938.48	88,850	3/6	16	85922703.60	536
9/5	5	36239650.75	81,003	3/6	17	81360495.59	2,038
9/5	6	53250575.34	55,184	3/6	18	83975730.67	906
9/5	7	66904523.52	37,723	3/6	19	92465749.43	84
9/5	8	76247550.01	27,700	3/6	20	102082363.02	3,744
9/5	9	90994953.36	15,245	3/6	21	98741455.92	1,858
9/5	10	100560747.93	9,312	3/6	22	94011966.49	303
9/5	11	107344160.57	5,975	3/6	23	87576954.71	284
9/5	12	112213905.85	3,989	3/6	24	81717778.52	1,700

9/5	13	117441374.25	2,468	3/7	1	71260426.32	2,597
9/5	14	122565862.54	1,226	3/7	2	64759554.02	6,825
9/5	15	120288186.48	1,893	3/7	3	60982021.12	10,282
9/5	16	119798305.87	1,992	3/7	4	57720714.40	13,535
9/5	17	114472402.25	3,449	3/7	5	57029747.81	14,293
9/5	18	105807986.50	6,697	3/7	6	58414386.49	12,809
9/5	19	99485464.25	9,883	3/7	7	62937020.84	8,489
9/5	20	101943154.69	8,488	3/7	8	70470750.56	3,208
9/5	21	89623930.37	16,305	3/7	9	76991904.44	571
9/5	22	73215196.09	30,804	3/7	10	80179670.01	21
9/5	23	53511527.14	54,875	3/7	11	79741378.55	222
9/5	24	44322973.27	68,380	3/7	12	77027714.37	622
9/6	1	33300575.64	66,623	3/7	13	72603695.10	2,091
9/6	2	27144727.01	75,257	3/7	14	65273100.89	6,431
9/6	3	24845188.19	78,251	3/7	15	60788881.78	10,490
9/6	4	24234561.82	79,046	3/7	16	57994328.73	13,133
9/6	5	25076503.73	77,986	3/7	17	57234456.77	13,925
9/6	6	27042607.16	75,379	3/7	18	61131998.22	10,150
9/6	7	29917803.88	71,351	3/7	19	71739064.85	2,557
9/6	8	36069804.31	62,711	3/7	20	83875249.12	110
9/6	9	51450831.16	42,074	3/7	21	80051637.11	-37
9/6	10	59326332.29	33,056	3/7	22	75836364.53	860
9/6	11	69468535.48	22,961	3/7	23	67702381.42	4,849
9/6	12	73056479.68	19,693	3/7	24	58125088.19	13,088
9/6	13	74044700.41	18,917	3/8	1	58740440.08	9,788
9/6	14	78535779.03	15,438	3/8	2	53029196.91	15,408
9/6	15	81860820.39	13,073	3/8	3	50312936.74	18,378
9/6	16	83692129.12	11,912	3/8	4	48752214.20	20,141
9/6	17	85259062.13	10,995	3/8	5	49371150.97	19,403
9/6	18	79950880.37	14,428	3/8	6	51916391.30	16,566
9/6	19	74015114.67	18,873	3/8	7	53497751.81	14,984
9/6	20	84375655.41	11,636	3/8	8	54475534.20	13,914
9/6	21	74534532.63	18,471	3/8	9	60429859.76	8,221
9/6	22	60305520.72	31,956	3/8	10	63368526.62	5,955
9/6	23	45560071.42	49,697	3/8	11	63529719.91	5,803
9/6	24	39115313.24	58,426	3/8	12	63542971.11	5,708
9/7	1	30603659.48	68,092	3/8	13	61955882.55	6,925
9/7	2	25840675.21	74,612	3/8	14	61660916.99	7,334
9/7	3	24491191.65	76,303	3/8	15	58550603.94	9,997
9/7	4	23467724.73	77,585	3/8	16	56413417.15	11,998
9/7	5	23072884.08	78,058	3/8	17	57607316.15	10,826
9/7	6	23642848.62	77,350	3/8	18	62081511.69	7,004
9/7	7	25641795.26	74,850	3/8	19	73394913.41	773
9/7	8	28839183.47	70,553	3/8	20	86971047.57	1,408
9/7	9	38711697.91	56,840	3/8	21	87068806.35	1,446
9/7	10	46650315.12	46,310	3/8	22	77897525.27	18

9/7	11	55365457.34	35,717	3/8	23	69188819.58	2,467
9/7	12	61972724.60	28,673	3/8	24	61623926.90	7,356
9/7	13	64058577.57	26,629	3/9	1	56461730.07	26,782
9/7	14	68939257.40	22,051	3/9	2	50813530.10	35,713
9/7	15	73689365.74	18,027	3/9	3	49750511.18	37,517
9/7	16	77070702.12	15,507	3/9	4	50423064.82	36,325
9/7	17	82077126.99	12,016	3/9	5	54145526.29	30,308
9/7	18	77813609.84	14,851	3/9	6	62324863.37	18,486
9/7	19	74330989.60	17,574	3/9	7	82629111.42	1,313
9/7	20	83503128.63	11,065	3/9	8	94086918.76	608
9/7	21	75600226.48	16,616	3/9	9	97409061.84	1,504
9/7	22	62874721.44	27,683	3/9	10	99263344.11	2,425
9/7	23	45900553.07	47,299	3/9	11	99267643.28	2,398
9/7	24	39665849.30	55,577	3/9	12	99442410.64	2,395
9/8	1	29990834.82	68,116	3/9	13	97190290.48	1,463
9/8	2	25618482.23	74,067	3/9	14	95411043.96	797
9/8	3	23639214.55	76,533	3/9	15	89535588.88	-48
9/8	4	22965559.02	77,416	3/9	16	86086525.75	296
9/8	5	22892963.02	77,492	3/9	17	83474188.40	1,068
9/8	6	24370159.21	75,638	3/9	18	86230175.90	283
9/8	7	25895163.08	73,643	3/9	19	95597632.55	1,001
9/8	8	29481631.53	68,880	3/9	20	109679018.04	10,319
9/8	9	39305012.68	55,346	3/9	21	103993437.10	5,114
9/8	10	49742341.42	41,819	3/9	22	97034770.64	1,382
9/8	11	60672681.98	29,509	3/9	23	79886057.93	2,460
9/8	12	66103431.98	24,073	3/9	24	72256349.29	7,669
9/8	13	70530397.39	20,183	3/10	1	65295357.05	30,320
9/8	14	72926413.91	18,140	3/10	2	59114780.68	41,840
9/8	15	76367169.07	15,579	3/10	3	56358698.50	47,389
9/8	16	80080178.45	12,968	3/10	4	57178804.56	45,727
9/8	17	84761600.56	10,136	3/10	5	61851458.94	36,598
9/8	18	82978585.13	11,075	3/10	6	71297260.52	20,676
9/8	19	81504019.56	12,099	3/10	7	93255558.16	1,101
9/8	20	92745368.08	6,032	3/10	8	104733859.65	807
9/8	21	84104435.34	10,460	3/10	9	105521866.53	1,016
9/8	22	68035061.16	22,382	3/10	10	106153872.05	1,146
9/8	23	52963186.30	37,912	3/10	11	105935768.06	1,026
9/8	24	41970440.99	51,703	3/10	12	105372002.99	856
9/9	1	36084843.94	87,962	3/10	13	104464329.47	677
9/9	2	32544849.44	93,828	3/10	14	102945863.58	466
9/9	3	30794109.79	96,608	3/10	15	95824819.41	295
9/9	4	31499498.22	95,524	3/10	16	94183644.86	826
9/9	5	35749088.34	88,514	3/10	17	92748950.32	1,237
9/9	6	53842556.00	59,922	3/10	18	94975128.74	553
9/9	7	65877537.44	43,770	3/10	19	106128494.52	1,293
9/9	8	74915172.59	33,202	3/10	20	117611298.61	8,537

9/9	9	94260248.87	15,882	3/10	21	111577732.59	3,978
9/9	10	109212028.13	7,129	3/10	22	99970742.63	-15
9/9	11	117578513.72	3,662	3/10	23	85331332.00	5,100
9/9	12	121906616.42	2,538	3/10	24	72223005.61	19,393
9/9	13	131043037.58	481	3/11	1	60022596.90	10,860
9/9	14	137392751.82	202	3/11	2	53991115.01	17,416
9/9	15	139719134.96	126	3/11	3	50753164.29	21,198
9/9	16	142135671.47	161	3/11	4	50027873.65	22,096
9/9	17	134587202.98	258	3/11	5	55148337.76	16,063
9/9	18	129161233.52	997	3/11	6	65123411.35	6,563
9/9	19	121042135.75	2,749	3/11	7	82835554.58	18
9/9	20	133977990.33	346	3/11	8	90722168.16	2,184
9/9	21	119216639.15	3,177	3/11	9	94710943.96	4,433
9/9	22	95180914.36	15,289	3/11	10	95705419.38	5,087
9/9	23	73323161.25	35,034	3/11	11	93524022.26	3,665
9/9	24	55444208.95	57,629	3/11	12	94162431.41	3,921
9/10	1	46998519.61	76,542	3/11	13	89643903.24	1,540
9/10	2	39267240.41	89,393	3/11	14	88204649.66	1,005
9/10	3	37001322.07	93,248	3/11	15	86982285.81	598
9/10	4	37147824.41	93,036	3/11	16	84528732.46	323
9/10	5	42396748.73	84,163	3/11	17	82845933.65	-52
9/10	6	64233994.36	50,809	3/11	18	84281516.66	343
9/10	7	80496238.04	31,478	3/11	19	87126521.13	655
9/10	8	87549950.25	24,619	3/11	20	100336901.30	8,912
9/10	9	105308623.77	11,327	3/11	21	96806049.09	5,921
9/10	10	118807564.90	4,690	3/11	22	86703105.94	768
9/10	11	127289965.81	2,244	3/11	23	74954674.26	1,063
9/10	12	133704093.91	948	3/11	24	63040435.18	8,040
9/10	13	140214665.91	209	3/12	1	52365646.28	27,980
9/10	14	144506084.15	-128	3/12	2	43973322.52	40,826
9/10	15	148506663.02	193	3/12	3	41982875.67	43,797
9/10	16	152622994.94	250	3/12	4	41436535.14	44,610
9/10	17	146066361.01	-145	3/12	5	44137104.24	40,659
9/10	18	141210907.42	23	3/12	6	53991808.29	25,716
9/10	19	134778660.03	763	3/12	7	71689311.56	5,659
9/10	20	150941299.28	118	3/12	8	83907146.20	312
9/10	21	128655943.90	1,871	3/12	9	86909011.79	19
9/10	22	101425888.16	13,804	3/12	10	87029693.35	-129
9/10	23	76028229.27	36,240	3/12	11	88547175.74	-11
9/10	24	60456930.74	56,044	3/12	12	87804028.99	-41
9/11	1	48323928.25	59,925	3/12	13	87574990.55	160
9/11	2	40381731.23	71,783	3/12	14	85544543.68	92
9/11	3	37408268.50	76,474	3/12	15	82455477.85	484
9/11	4	37560199.31	76,164	3/12	16	78032558.10	1,940
9/11	5	45438409.78	64,189	3/12	17	75607735.81	3,234
9/11	6	72670646.45	29,568	3/12	18	79387597.10	1,442

9/11	7	87655547.23	16,424	3/12	19	89961902.59	353
9/11	8	95903954.75	11,036	3/12	20	96574027.87	2,258
9/11	9	119645167.44	1,472	3/12	21	91847847.10	613
9/11	10	132136511.31	5	3/12	22	82773771.28	488
9/11	11	138784521.94	157	3/12	23	68203072.07	8,680
9/11	12	143677505.67	753	3/12	24	57727989.00	20,504
9/11	13	154222175.30	2,650	3/13	1	44791474.37	20,249
9/11	14	158162745.53	3,816	3/13	2	42884576.68	22,225
9/11	15	159915534.81	4,297	3/13	3	40685994.45	24,532
9/11	16	162743809.65	5,248	3/13	4	39408814.07	25,734
9/11	17	157624547.91	3,712	3/13	5	40898454.22	24,417
9/11	18	147670202.04	1,250	3/13	6	49503233.36	15,381
9/11	19	141358494.52	242	3/13	7	67071330.76	2,016
9/11	20	148246113.94	1,343	3/13	8	77624813.03	24
9/11	21	134005335.48	-73	3/13	9	83352813.07	1,155
9/11	22	107703340.96	5,001	3/13	10	86865556.88	2,633
9/11	23	78360225.27	24,082	3/13	11	87017473.14	2,672
9/11	24	58073562.65	46,427	3/13	12	86041912.85	2,205
9/12	1	45655234.63	62,438	3/13	13	82943164.98	904
9/12	2	38544186.59	73,151	3/13	14	80595638.91	375
9/12	3	35355239.56	78,081	3/13	15	80029085.43	362
9/12	4	35077726.18	78,501	3/13	16	77041593.95	-4
9/12	5	41566463.58	68,509	3/13	17	74608886.33	55
9/12	6	73782641.34	27,534	3/13	18	72794365.71	243
9/12	7	82883211.69	19,384	3/13	19	76978478.81	125
9/12	8	88381971.70	15,233	3/13	20	85587521.80	2,135
9/12	9	105224534.47	5,818	3/13	21	79614767.01	300
9/12	10	117200143.20	1,799	3/13	22	75538846.78	-56
9/12	11	124843366.22	369	3/13	23	64615052.97	3,326
9/12	12	128365999.20	38	3/13	24	52503446.78	12,388
9/12	13	134794735.27	9	3/14	1	47720831.69	13,768
9/12	14	136722302.18	202	3/14	2	44243932.74	16,896
9/12	15	136762909.31	10	3/14	3	40244661.39	20,493
9/12	16	137803369.77	289	3/14	4	37214072.14	23,068
9/12	17	131684108.94	-54	3/14	5	35918105.27	24,159
9/12	18	120472803.56	1,268	3/14	6	38608677.80	21,947
9/12	19	111557273.07	3,307	3/14	7	48576268.55	13,039
9/12	20	122187856.28	798	3/14	8	53544598.36	8,737
9/12	21	103503582.17	6,539	3/14	9	63478292.93	2,451
9/12	22	83073564.83	19,223	3/14	10	66613329.87	1,208
9/12	23	64962483.80	37,025	3/14	11	66350790.29	1,156
9/12	24	51345442.74	54,233	3/14	12	65917949.27	1,530
9/13	1	39726682.99	36,731	3/14	13	61853752.60	3,267
9/13	2	33833802.37	43,444	3/14	14	60943055.38	3,741
9/13	3	29818895.39	48,280	3/14	15	57746906.03	5,734
9/13	4	28489160.03	49,816	3/14	16	55363692.53	7,294

9/13	5	30104946.42	47,853	3/14	17	55482024.21	7,120
9/13	6	35240628.66	41,794	3/14	18	58426493.61	5,133
9/13	7	38808083.10	37,825	3/14	19	69375483.36	339
9/13	8	46817458.35	29,052	3/14	20	72868325.89	29
9/13	9	65174603.53	13,289	3/14	21	69490149.71	388
9/13	10	74333607.78	7,761	3/14	22	63119530.79	2,405
9/13	11	78204867.45	5,859	3/14	23	55440322.45	7,195
9/13	12	80062684.50	5,133	3/14	24	47083270.92	14,395
9/13	13	81165074.47	4,466	3/15	1	43107298.80	12,216
9/13	14	81930068.67	4,327	3/15	2	38754271.79	15,434
9/13	15	85275439.44	3,023	3/15	3	36254220.89	16,997
9/13	16	86357469.61	2,859	3/15	4	35399726.54	17,521
9/13	17	86446947.56	2,600	3/15	5	37009772.96	16,571
9/13	18	83994789.08	3,651	3/15	6	41226061.13	13,566
9/13	19	81742540.85	4,402	3/15	7	48149416.63	8,449
9/13	20	87502338.81	2,400	3/15	8	50148398.16	7,136
9/13	21	79559763.68	5,331	3/15	9	51293976.12	6,486
9/13	22	64770618.32	13,615	3/15	10	54452860.96	4,424
9/13	23	49606212.34	26,203	3/15	11	55671379.16	3,846
9/13	24	39305288.49	37,244	3/15	12	55179317.25	4,091
9/14	1	31944566.00	48,159	3/15	13	54897795.13	4,248
9/14	2	26695297.04	54,379	3/15	14	55204321.19	4,154
9/14	3	23931213.72	57,525	3/15	15	53117188.98	5,114
9/14	4	22645184.09	58,944	3/15	16	52812234.66	5,537
9/14	5	23060106.28	58,589	3/15	17	54996789.54	4,241
9/14	6	27038182.61	53,927	3/15	18	57527089.50	2,715
9/14	7	28357466.95	52,417	3/15	19	61513052.47	1,348
9/14	8	32062788.56	48,021	3/15	20	68932231.06	121
9/14	9	46592618.03	31,233	3/15	21	69510521.40	139
9/14	10	60099697.00	18,428	3/15	22	62815172.28	980
9/14	11	66841037.29	13,278	3/15	23	56101355.54	3,594
9/14	12	73921627.52	8,864	3/15	24	46510060.39	9,631
9/14	13	76194676.09	7,702	3/16	1	44914012.04	25,828
9/14	14	80180591.65	5,753	3/16	2	40625518.61	30,993
9/14	15	84670985.93	4,049	3/16	3	39150504.97	32,646
9/14	16	87341481.54	3,107	3/16	4	40857316.52	30,691
9/14	17	91780278.24	1,870	3/16	5	47558964.07	22,768
9/14	18	88953709.38	2,425	3/16	6	67387950.66	3,807
9/14	19	88235748.91	2,778	3/16	7	90937927.31	2,953
9/14	20	96171055.66	966	3/16	8	89491192.29	2,159
9/14	21	89632418.45	2,334	3/16	9	91385236.27	3,257
9/14	22	71144086.48	10,685	3/16	10	95923352.71	6,318
9/14	23	51740023.62	26,013	3/16	11	96150046.05	6,375
9/14	24	42197864.16	36,041	3/16	12	94682892.48	5,285
9/15	1	32515967.26	68,219	3/16	13	93514240.83	4,692
9/15	2	28375349.66	74,118	3/16	14	90250602.15	2,467

9/15	3	26322061.16	76,893	3/16	15	85325548.79	610
9/15	4	27680488.81	75,092	3/16	16	81075851.75	-127
9/15	5	33206433.56	67,296	3/16	17	80980665.89	-115
9/15	6	54443793.56	38,970	3/16	18	81335351.06	24
9/15	7	74813415.17	18,680	3/16	19	87524424.27	1,589
9/15	8	84355100.90	11,753	3/16	20	99582922.57	9,606
9/15	9	107762623.21	1,626	3/16	21	91457155.07	3,143
9/15	10	125003168.89	69	3/16	22	81079103.42	172
9/15	11	136147966.58	1,153	3/16	23	69601206.74	2,658
9/15	12	141958992.11	2,493	3/16	24	58707665.44	10,558
9/15	13	149820861.67	4,967	3/17	1	50451119.11	22,493
9/15	14	160039804.98	9,254	3/17	2	46533726.52	27,578
9/15	15	158922364.83	8,638	3/17	3	46554908.82	27,609
9/15	16	162362088.84	10,215	3/17	4	45676435.58	28,646
9/15	17	161560131.98	10,004	3/17	5	53767868.56	18,364
9/15	18	158669118.29	8,659	3/17	6	68925618.50	4,091
9/15	19	154006782.88	6,449	3/17	7	88481364.28	1,052
9/15	20	157877343.79	8,113	3/17	8	92294292.23	2,673
9/15	21	139726008.68	2,051	3/17	9	94584759.38	3,784
9/15	22	106829952.80	1,967	3/17	10	93978897.79	3,673
9/15	23	70362471.10	22,409	3/17	11	92781194.97	2,735
9/15	24	55083954.62	38,169	3/17	12	90214478.28	1,758
9/16	1	42735286.96	50,591	3/17	13	87457689.37	674
9/16	2	36309677.99	59,359	3/17	14	86425544.59	467
9/16	3	33715109.42	62,988	3/17	15	83502654.14	-7
9/16	4	33069841.89	63,800	3/17	16	79669797.71	133
9/16	5	40554669.17	53,485	3/17	17	77791513.92	533
9/16	6	69799929.98	20,862	3/17	18	77116395.52	691
9/16	7	81812652.20	11,732	3/17	19	82116030.83	69
9/16	8	94340006.06	5,340	3/17	20	93153872.25	3,205
9/16	9	111010545.86	712	3/17	21	88948247.00	1,061
9/16	10	125043142.56	321	3/17	22	81391701.22	-77
9/16	11	137868714.83	2,325	3/17	23	67770538.18	4,883
9/16	12	145017305.16	4,370	3/17	24	55410297.03	16,431
9/16	13	152389456.70	6,979	3/18	1	52745055.21	15,653
9/16	14	155869078.67	8,472	3/18	2	49315920.97	19,259
9/16	15	158923118.98	10,044	3/18	3	47947030.22	20,950
9/16	16	162698551.99	12,176	3/18	4	48302169.42	20,514
9/16	17	159031742.62	10,319	3/18	5	56084965.76	12,026
9/16	18	153548689.72	7,559	3/18	6	66836590.84	3,507
9/16	19	149635187.44	5,808	3/18	7	88424488.03	2,215
9/16	20	154143222.10	7,796	3/18	8	91476407.85	3,866
9/16	21	133698100.69	1,400	3/18	9	89793801.91	2,697
9/16	22	104804812.96	1,822	3/18	10	87366969.09	1,571
9/16	23	73826054.29	17,435	3/18	11	85889772.44	1,136
9/16	24	56139849.46	34,246	3/18	12	81898714.56	143

9/17	1	47513105.05	51,838	3/18	13	81600581.22	229
9/17	2	40257006.38	62,053	3/18	14	80386306.56	168
9/17	3	36950909.71	66,800	3/18	15	77351441.71	92
9/17	4	37163451.22	66,484	3/18	16	75580793.05	248
9/17	5	44319364.65	56,309	3/18	17	73678091.66	803
9/17	6	80400157.51	16,878	3/18	18	74906396.47	470
9/17	7	97037942.72	6,649	3/18	19	82056040.10	376
9/17	8	97146367.05	6,585	3/18	20	93161572.94	4,954
9/17	9	109756411.52	2,078	3/18	21	87019428.29	1,468
9/17	10	123549473.15	115	3/18	22	83178558.73	291
9/17	11	127848766.62	-106	3/18	23	68973156.41	2,578
9/17	12	128679263.48	-40	3/18	24	56403758.14	11,730
9/17	13	133269090.22	247	3/19	1	48406227.59	24,981
9/17	14	136760201.90	630	3/19	2	44418980.11	30,229
9/17	15	138307648.26	939	3/19	3	44067286.21	30,634
9/17	16	138807096.81	915	3/19	4	45197618.40	29,271
9/17	17	134868431.11	421	3/19	5	51880679.00	20,630
9/17	18	129196962.57	-18	3/19	6	70520313.68	3,298
9/17	19	124762886.52	2	3/19	7	94017134.23	3,460
9/17	20	135682347.26	478	3/19	8	92271346.61	2,494
9/17	21	118038101.46	605	3/19	9	90236051.00	1,640
9/17	22	91847338.93	9,327	3/19	10	88342928.96	959
9/17	23	67597182.37	28,099	3/19	11	86355039.08	616
9/17	24	51092145.37	47,052	3/19	12	84245696.93	193
9/18	1	41875389.01	44,580	3/19	13	85444161.05	374
9/18	2	36806808.68	50,986	3/19	14	81616916.21	-31
9/18	3	34135089.86	54,506	3/19	15	78222068.17	276
9/18	4	34197424.64	54,356	3/19	16	75326723.40	976
9/18	5	41571632.35	44,889	3/19	17	71865047.44	2,652
9/18	6	67150790.68	18,281	3/19	18	70023302.33	3,542
9/18	7	85238352.90	6,584	3/19	19	77858266.39	362
9/18	8	87066361.42	5,826	3/19	20	89955394.48	1,738
9/18	9	98422222.61	1,873	3/19	21	80403389.65	72
9/18	10	111317221.85	42	3/19	22	69100591.60	4,141
9/18	11	118845490.26	146	3/19	23	59242165.17	12,192
9/18	12	123087073.41	748	3/19	24	48471947.24	24,887
9/18	13	124609634.90	910	3/20	1	45707789.09	28,114
9/18	14	126079308.22	1,109	3/20	2	41114275.56	34,015
9/18	15	127131274.16	1,150	3/20	3	40674968.33	34,643
9/18	16	130527873.79	2,077	3/20	4	42164782.17	32,777
9/18	17	124897251.47	772	3/20	5	48977718.74	23,953
9/18	18	120473421.35	448	3/20	6	68250250.68	4,448
9/18	19	118351310.20	143	3/20	7	86711393.93	638
9/18	20	124785695.87	674	3/20	8	86564732.12	606
9/18	21	110841144.52	117	3/20	9	87346382.58	808
9/18	22	87500866.59	5,669	3/20	10	87369910.31	651

9/18	23	67369248.40	18,024	3/20	11	86377401.86	512
9/18	24	50884575.79	33,882	3/20	12	84273396.56	31
9/19	1	38870155.72	41,027	3/20	13	81541794.76	159
9/19	2	33542061.24	47,468	3/20	14	80458350.27	-5
9/19	3	30199061.20	51,559	3/20	15	75754496.37	866
9/19	4	30815632.12	50,688	3/20	16	70707872.21	2,957
9/19	5	38287538.47	41,623	3/20	17	67457913.95	5,076
9/19	6	60611628.13	18,888	3/20	18	64894394.03	6,937
9/19	7	78672061.93	6,922	3/20	19	68913634.41	3,999
9/19	8	83864777.35	4,711	3/20	20	78806694.52	179
9/19	9	92303981.62	1,913	3/20	21	69435292.27	3,791
9/19	10	103526290.57	122	3/20	22	61041828.66	10,181
9/19	11	111191212.75	116	3/20	23	50233251.61	22,462
9/19	12	114920234.69	351	3/20	24	45326149.95	28,691
9/19	13	116799085.94	485	3/21	1	43998744.30	12,248
9/19	14	120536447.96	1,376	3/21	2	40485035.69	14,912
9/19	15	121230687.97	1,439	3/21	3	38299989.65	16,506
9/19	16	121030978.10	1,475	3/21	4	36874461.97	17,325
9/19	17	116078711.99	375	3/21	5	39450279.22	15,684
9/19	18	105338907.76	175	3/21	6	46437559.03	10,398
9/19	19	99793688.70	569	3/21	7	56504341.71	3,679
9/19	20	106492656.70	-12	3/21	8	61284139.41	1,658
9/19	21	93838965.30	1,569	3/21	9	65020717.57	506
9/19	22	75694794.92	8,568	3/21	10	67593922.27	103
9/19	23	56251517.97	22,644	3/21	11	67195009.44	87
9/19	24	42427338.90	36,911	3/21	12	64530276.79	734
9/20	1	34041989.83	44,203	3/21	13	63488030.59	877
9/20	2	29875223.96	49,096	3/21	14	60108684.17	2,154
9/20	3	27232297.54	52,319	3/21	15	57472320.29	3,217
9/20	4	26039433.07	53,602	3/21	16	55890333.96	4,067
9/20	5	27066213.56	52,493	3/21	17	56736784.66	3,695
9/20	6	32721189.22	45,754	3/21	18	57511489.15	3,176
9/20	7	40680905.20	36,487	3/21	19	61429705.68	1,655
9/20	8	46989423.23	29,723	3/21	20	71391313.35	-60
9/20	9	64134666.82	14,625	3/21	21	66249517.85	343
9/20	10	76318682.62	7,118	3/21	22	61156261.85	1,526
9/20	11	81255298.37	4,751	3/21	23	49877429.62	7,929
9/20	12	85838456.70	3,182	3/21	24	47170333.79	9,745
9/20	13	87493015.05	2,679	3/22	1	41211505.23	13,682
9/20	14	94486699.53	841	3/22	2	37020602.69	16,463
9/20	15	97377257.08	651	3/22	3	36782349.18	16,621
9/20	16	98139439.44	454	3/22	4	35765319.99	17,247
9/20	17	96158974.73	848	3/22	5	37975052.80	15,891
9/20	18	91851912.53	1,465	3/22	6	45018237.03	10,833
9/20	19	88405699.93	2,267	3/22	7	49975722.12	7,310
9/20	20	96529251.77	782	3/22	8	48299610.02	8,408

9/20	21	84868606.00	3,539	3/22	9	52071236.60	5,947
9/20	22	67918039.87	11,920	3/22	10	54549531.10	4,424
9/20	23	49788758.46	26,820	3/22	11	55518089.70	3,744
9/20	24	39132631.32	38,166	3/22	12	54351786.18	4,450
9/21	1	32275999.59	48,007	3/22	13	53540463.66	5,031
9/21	2	26862676.13	54,585	3/22	14	50162861.99	7,009
9/21	3	24033830.59	57,911	3/22	15	47306660.58	9,182
9/21	4	22650562.05	59,444	3/22	16	47274836.16	9,207
9/21	5	23238704.04	58,746	3/22	17	49421546.53	7,680
9/21	6	27595089.30	53,769	3/22	18	52579586.31	5,630
9/21	7	31373160.47	49,120	3/22	19	62462964.45	1,113
9/21	8	36643966.32	42,856	3/22	20	71742893.06	268
9/21	9	52527911.54	25,473	3/22	21	69555437.44	115
9/21	10	65805560.59	14,390	3/22	22	61188497.70	1,320
9/21	11	72126883.99	10,240	3/22	23	50587589.94	6,754
9/21	12	75463385.73	8,376	3/22	24	46944900.62	9,325
9/21	13	79494711.77	6,186	3/23	1	43841299.73	22,738
9/21	14	84785584.35	4,015	3/23	2	40789292.02	25,982
9/21	15	86646080.55	3,498	3/23	3	40427589.59	26,321
9/21	16	90744835.76	2,064	3/23	4	42709514.55	23,817
9/21	17	91327022.02	2,044	3/23	5	52129008.99	13,800
9/21	18	88409160.68	2,679	3/23	6	66444123.74	2,880
9/21	19	87893598.78	2,963	3/23	7	82921918.12	800
9/21	20	98265285.63	524	3/23	8	88630851.66	3,162
9/21	21	85514130.37	3,712	3/23	9	91102009.72	4,540
9/21	22	70748290.48	10,967	3/23	10	92861073.61	5,970
9/21	23	51907630.04	26,139	3/23	11	90639591.84	4,295
9/21	24	40368515.22	38,468	3/23	12	89954393.26	4,099
9/22	1	36544939.93	46,375	3/23	13	88106960.55	2,732
9/22	2	30481298.58	53,948	3/23	14	85443678.65	1,708
9/22	3	28265347.21	56,722	3/23	15	79106116.91	173
9/22	4	28761795.19	56,017	3/23	16	76984296.38	78
9/22	5	34953877.89	48,315	3/23	17	76547519.44	20
9/22	6	57668720.27	23,157	3/23	18	77186317.27	-85
9/22	7	79948121.20	7,364	3/23	19	82636175.26	744
9/22	8	86636335.32	4,319	3/23	20	91199044.66	4,636
9/22	9	103793521.67	339	3/23	21	86365247.66	2,087
9/22	10	119107535.38	507	3/23	22	77774832.24	-109
9/22	11	126463381.46	2,064	3/23	23	66154375.12	2,813
9/22	12	135527620.08	4,728	3/23	24	52266361.02	13,649
9/22	13	141068276.16	6,846	3/24	1	47682467.17	26,154
9/22	14	144391326.47	8,500	3/24	2	42891037.74	32,387
9/22	15	148090515.99	10,307	3/24	3	41860379.80	33,602
9/22	16	151288211.45	11,921	3/24	4	43532377.61	31,430
9/22	17	145109109.85	8,774	3/24	5	52790062.04	19,636
9/22	18	139792008.85	6,494	3/24	6	66843866.96	5,737

9/22	19	135845958.01	4,943	3/24	7	85354467.67	303
9/22	20	140486366.49	6,756	3/24	8	93414409.45	3,329
9/22	21	130839025.82	3,041	3/24	9	94536498.55	3,731
9/22	22	101853344.79	618	3/24	10	93682687.13	3,406
9/22	23	68897933.38	14,134	3/24	11	90096646.41	1,483
9/22	24	52735511.85	27,940	3/24	12	87266520.37	591
9/23	1	45114411.73	47,740	3/24	13	86654851.93	617
9/23	2	38835419.07	56,166	3/24	14	83892862.84	-43
9/23	3	35814820.60	60,287	3/24	15	79377531.84	285
9/23	4	36400676.30	59,402	3/24	16	75764228.71	881
9/23	5	46245963.51	46,311	3/24	17	72672793.06	2,053
9/23	6	77741476.62	14,742	3/24	18	71770120.10	2,519
9/23	7	108402537.30	1,211	3/24	19	77605006.26	613
9/23	8	107000023.43	1,373	3/24	20	88396801.30	926
9/23	9	114184452.57	376	3/24	21	84050552.79	196
9/23	10	130099685.85	640	3/24	22	72838649.32	2,016
9/23	11	137578916.20	1,951	3/24	23	58905987.18	12,628
9/23	12	140517422.38	2,739	3/24	24	50349516.95	22,630
9/23	13	145947875.27	4,568	3/25	1	47307921.27	21,369
9/23	14	148951000.68	5,652	3/25	2	42524750.44	26,816
9/23	15	150390475.66	6,243	3/25	3	41761473.72	27,743
9/23	16	152311180.21	6,891	3/25	4	43635176.92	25,602
9/23	17	147487880.39	4,883	3/25	5	51336416.68	16,816
9/23	18	140055545.43	2,862	3/25	6	66246304.67	3,882
9/23	19	143877483.84	3,640	3/25	7	86391502.27	1,273
9/23	20	145212263.47	4,094	3/25	8	87940378.36	2,029
9/23	21	130084015.76	718	3/25	9	89157479.33	2,758
9/23	22	102192620.92	2,600	3/25	10	87495959.32	1,849
9/23	23	75466914.86	16,411	3/25	11	83852878.77	757
9/23	24	59014936.90	31,259	3/25	12	82167141.58	306
9/24	1	50896534.42	33,671	3/25	13	81121848.39	-35
9/24	2	43719686.06	41,983	3/25	14	80300930.32	129
9/24	3	39587891.57	47,065	3/25	15	77319563.68	-14
9/24	4	40577523.20	45,762	3/25	16	73821277.97	620
9/24	5	49926230.81	34,644	3/25	17	71227837.37	1,555
9/24	6	81385179.93	8,484	3/25	18	70259339.51	1,929
9/24	7	103071699.50	949	3/25	19	77385575.16	145
9/24	8	106387550.32	367	3/25	20	86156873.36	1,129
9/24	9	112024421.96	-24	3/25	21	81902457.88	150
9/24	10	124471065.40	664	3/25	22	77308790.14	61
9/24	11	137066383.79	3,948	3/25	23	60278123.33	8,053
9/24	12	144940362.68	6,982	3/25	24	51068163.97	17,118
9/24	13	151982296.90	10,261	3/26	1	45655849.05	32,657
9/24	14	156069221.68	12,282	3/26	2	42808271.84	36,610
9/24	15	158490663.88	13,530	3/26	3	41556701.61	38,348
9/24	16	159687634.37	14,299	3/26	4	43653616.06	35,331

9/24	17	156191332.71	12,495	3/26	5	50650462.30	25,600
9/24	18	149100766.28	8,729	3/26	6	64624521.33	9,253
9/24	19	147296438.64	7,949	3/26	7	86915360.45	177
9/24	20	150252090.85	9,310	3/26	8	92976883.04	1,918
9/24	21	130978726.22	1,953	3/26	9	94283031.68	2,779
9/24	22	105414645.16	571	3/26	10	94601369.35	2,894
9/24	23	79304357.57	9,670	3/26	11	94081231.22	2,640
9/24	24	62698897.99	21,919	3/26	12	90999496.36	1,088
9/25	1	46420145.94	43,801	3/26	13	90737783.18	1,065
9/25	2	41817105.68	49,788	3/26	14	87550932.12	284
9/25	3	38752906.72	53,871	3/26	15	83362290.94	-56
9/25	4	39306115.92	53,109	3/26	16	78926456.50	735
9/25	5	48661450.10	41,064	3/26	17	76120519.41	1,479
9/25	6	75443536.58	15,016	3/26	18	75449711.47	1,801
9/25	7	95239322.07	4,256	3/26	19	78375637.27	919
9/25	8	93910203.68	4,661	3/26	20	90166830.76	1,006
9/25	9	102532159.91	1,960	3/26	21	83205058.76	51
9/25	10	112911047.83	170	3/26	22	75450152.55	1,798
9/25	11	117031251.87	-50	3/26	23	63499717.19	10,246
9/25	12	123725084.29	305	3/26	24	53395549.79	22,052
9/25	13	127914547.92	500	3/27	1	53102116.74	36,921
9/25	14	130891482.87	1,035	3/27	2	49588929.79	43,147
9/25	15	131656447.12	1,296	3/27	3	48916025.78	44,318
9/25	16	135000486.15	1,882	3/27	4	51517825.22	39,658
9/25	17	131765801.60	1,090	3/27	5	61841138.22	22,800
9/25	18	125159943.74	200	3/27	6	78008158.44	5,145
9/25	19	131635374.25	1,059	3/27	7	101454818.13	2,152
9/25	20	130686985.98	1,041	3/27	8	108475271.27	6,958
9/25	21	116427948.80	-36	3/27	9	111236120.87	9,548
9/25	22	93485415.64	4,894	3/27	10	108610523.78	6,930
9/25	23	70854046.01	18,628	3/27	11	104075148.89	3,751
9/25	24	54978525.60	33,762	3/27	12	100429539.99	1,987
9/26	1	45723164.12	36,961	3/27	13	98865714.00	1,377
9/26	2	41697260.68	41,738	3/27	14	92882075.57	-89
9/26	3	39030726.49	44,966	3/27	15	85337597.46	1,268
9/26	4	39486794.53	44,319	3/27	16	78337111.37	4,844
9/26	5	43626851.41	39,449	3/27	17	74881388.61	7,438
9/26	6	70573685.08	13,816	3/27	18	72746234.66	9,456
9/26	7	86562297.39	5,015	3/27	19	78701157.63	4,588
9/26	8	89777804.13	3,746	3/27	20	88516987.16	415
9/26	9	96831384.76	1,602	3/27	21	86111263.98	1,020
9/26	10	100805057.70	747	3/27	22	77460167.50	5,333
9/26	11	105493229.06	172	3/27	23	63275993.36	20,895
9/26	12	107562070.34	138	3/27	24	55745832.40	32,447
9/26	13	107472705.92	11	3/28	1	50676951.70	14,609
9/26	14	110704478.66	146	3/28	2	47068824.04	18,298

9/26	15	108189120.05	107	3/28	3	46055556.11	19,476
9/26	16	106780102.36	120	3/28	4	46072561.39	19,344
9/26	17	100999724.69	838	3/28	5	49504210.29	15,735
9/26	18	95375533.03	2,165	3/28	6	56304375.34	9,449
9/26	19	98097871.73	1,353	3/28	7	63095484.37	4,330
9/26	20	99822282.72	965	3/28	8	68890496.95	1,557
9/26	21	90863277.27	3,476	3/28	9	74906396.47	118
9/26	22	75781926.17	10,483	3/28	10	77973827.48	112
9/26	23	59491579.28	22,738	3/28	11	74849808.32	212
9/26	24	45777929.43	36,935	3/28	12	68755502.42	1,399
9/27	1	34206657.14	42,303	3/28	13	63503613.08	3,952
9/27	2	28938175.91	48,483	3/28	14	56703382.56	9,076
9/27	3	26726832.19	51,168	3/28	15	52804047.06	12,460
9/27	4	25964872.67	52,019	3/28	16	50713390.91	14,551
9/27	5	28519579.48	48,976	3/28	17	50327105.18	14,871
9/27	6	36380324.33	39,915	3/28	18	51049184.45	14,191
9/27	7	42399661.40	33,156	3/28	19	55516675.05	9,937
9/27	8	47786197.60	27,545	3/28	20	63970411.15	3,690
9/27	9	61135030.79	15,826	3/28	21	65540934.17	2,899
9/27	10	70537120.43	9,446	3/28	22	60384009.41	6,145
9/27	11	73739246.77	7,682	3/28	23	46271393.92	19,254
9/27	12	70512331.48	9,604	3/28	24	39213246.70	26,428
9/27	13	71535531.36	8,963	3/29	1	36519036.32	27,919
9/27	14	70656952.04	9,413	3/29	2	34016630.68	29,886
9/27	15	71697389.46	8,919	3/29	3	33235511.53	30,349
9/27	16	72636736.05	8,405	3/29	4	33404231.06	30,261
9/27	17	72834779.11	8,147	3/29	5	35508300.35	28,755
9/27	18	72394116.16	8,453	3/29	6	38241007.72	26,444
9/27	19	77980150.79	5,689	3/29	7	43997846.88	20,683
9/27	20	83747748.10	3,312	3/29	8	47685953.93	16,940
9/27	21	73718423.91	7,813	3/29	9	53405522.92	11,340
9/27	22	62135189.69	15,027	3/29	10	57563018.18	7,632
9/27	23	47574152.01	27,698	3/29	11	59094802.20	6,508
9/27	24	38453974.96	37,566	3/29	12	57451293.09	7,740
9/28	1	32352170.56	58,248	3/29	13	57342258.14	7,829
9/28	2	28205791.38	63,641	3/29	14	53723644.55	10,998
9/28	3	25919678.93	66,620	3/29	15	51537935.68	13,089
9/28	4	25628008.32	66,908	3/29	16	50663374.64	13,990
9/28	5	25631049.10	66,887	3/29	17	52221337.73	12,374
9/28	6	28429046.51	63,321	3/29	18	53696363.12	10,974
9/28	7	32182042.27	58,487	3/29	19	61459762.03	4,856
9/28	8	36759478.30	52,373	3/29	20	71111535.84	667
9/28	9	47452746.24	38,946	3/29	21	67623674.91	1,770
9/28	10	55929790.23	29,591	3/29	22	60545724.62	5,505
9/28	11	59362695.35	26,048	3/29	23	49552096.58	15,047
9/28	12	64183727.86	21,719	3/29	24	42816484.59	21,874

9/28	13	65574817.74	20,476	3/30	1	41641168.55	28,189
9/28	14	67475412.95	18,844	3/30	2	39288742.59	30,707
9/28	15	69587889.80	17,080	3/30	3	39536904.32	30,443
9/28	16	72478923.79	15,017	3/30	4	40435470.87	29,425
9/28	17	75662084.05	12,766	3/30	5	47405698.40	21,474
9/28	18	76038874.02	12,629	3/30	6	62666862.92	6,359
9/28	19	91825997.61	4,440	3/30	7	82693643.96	304
9/28	20	92066547.90	4,155	3/30	8	88321683.08	2,230
9/28	21	80281556.70	9,804	3/30	9	95318630.94	6,371
9/28	22	67519785.50	18,789	3/30	10	98323448.72	9,037
9/28	23	51960213.57	33,775	3/30	11	96120113.05	7,302
9/28	24	41946157.65	45,694	3/30	12	94924122.71	6,279
9/29	1	36346683.30	68,351	3/30	13	90121206.46	3,081
9/29	2	33125405.29	73,188	3/30	14	84094419.89	756
9/29	3	31043550.85	76,185	3/30	15	79655578.82	98
9/29	4	32483016.00	74,085	3/30	16	76123626.73	71
9/29	5	40338439.34	62,581	3/30	17	73935101.82	742
9/29	6	67104971.34	29,051	3/30	18	73888166.77	777
9/29	7	94945980.02	7,858	3/30	19	80126228.30	41
9/29	8	93489533.13	8,652	3/30	20	90257125.63	3,262
9/29	9	99269255.51	5,886	3/30	21	84755365.57	652
9/29	10	105263209.54	3,529	3/30	22	75267705.21	320
9/29	11	107088537.15	3,120	3/30	23	64854039.48	4,831
9/29	12	107686814.51	2,797	3/30	24	55295249.26	12,786
9/29	13	108537151.43	2,584	3/31	1	46140627.72	36,427
9/29	14	107584846.89	2,769	3/31	2	40874902.79	44,398
9/29	15	101654760.86	4,894	3/31	3	39176638.57	46,775
9/29	16	99188130.25	6,052	3/31	4	40788158.97	44,532
9/29	17	96722686.25	7,004	3/31	5	47457800.36	34,406
9/29	18	94723413.21	8,041	3/31	6	64109558.02	12,221
9/29	19	101475018.04	5,042	3/31	7	85209943.80	64
9/29	20	105943089.31	3,278	3/31	8	93994914.39	1,489
9/29	21	99395067.16	5,743	3/31	9	94837249.71	1,744
9/29	22	80848468.05	16,940	3/31	10	92670164.02	941
9/29	23	57171218.64	40,122	3/31	11	92528061.44	821
9/29	24	44259852.89	56,995	3/31	12	88529853.52	149
9/30	1	39212696.02	47,732	3/31	13	86477599.37	-28
9/30	2	35267916.96	52,922	3/31	14	84629297.89	134
9/30	3	32575195.61	56,379	3/31	15	79275558.53	1,146
9/30	4	33093959.85	55,645	3/31	16	75178360.48	3,125
9/30	5	39712232.38	47,089	3/31	17	73371566.80	4,326
9/30	6	66832952.99	18,437	3/31	18	70826226.76	6,027
9/30	7	86100106.89	6,182	3/31	19	75921397.74	2,770
9/30	8	88472954.83	5,286	3/31	20	90642611.97	385
9/30	9	95975269.24	2,572	3/31	21	83738238.69	131
9/30	10	102299669.45	1,128	3/31	22	69036852.83	7,436

9/30	11	103886225.77	936	3/31	23	55760022.09	22,354
9/30	12	100939882.03	1,359	3/31	24	47979179.78	33,711
9/30	13	102878024.37	875	4/1	1	40817342.24	41,090
9/30	14	102560216.35	1,157	4/1	2	36189468.11	46,956
9/30	15	98349603.50	1,970	4/1	3	35571403.43	47,655
9/30	16	96291399.35	2,476	4/1	4	35766093.06	47,500
9/30	17	92449920.87	3,729	4/1	5	40805723.80	41,012
9/30	18	90207957.02	4,633	4/1	6	55309356.29	20,596
9/30	19	101518157.28	1,356	4/1	7	77505577.33	1,256
9/30	20	105521304.96	615	4/1	8	86497064.89	-93
9/30	21	95770866.65	2,604	4/1	9	88087727.95	272
9/30	22	80597489.06	9,021	4/1	10	86578854.55	17
9/30	23	58938472.27	25,494	4/1	11	85632931.29	119
9/30	24	45852153.23	39,598	4/1	12	85127644.08	-59
10/1	1	36989440.36	56,492	4/1	13	83285068.92	191
10/1	2	33096396.72	61,731	4/1	14	80373380.55	416
10/1	3	31207458.35	64,336	4/1	15	76754073.23	1,764
10/1	4	30865661.25	64,884	4/1	16	75302935.94	2,324
10/1	5	38785951.13	54,082	4/1	17	71500305.86	4,467
10/1	6	60685124.31	28,003	4/1	18	69603703.87	5,831
10/1	7	83363238.77	9,940	4/1	19	71105618.70	4,813
10/1	8	86336082.60	8,299	4/1	20	82048074.95	102
10/1	9	91536211.42	5,845	4/1	21	77363566.82	1,354
10/1	10	96597738.91	3,868	4/1	22	66815170.01	8,081
10/1	11	98728608.06	3,124	4/1	23	50729297.57	26,983
10/1	12	95943802.26	3,952	4/1	24	41595759.40	39,965
10/1	13	96291399.35	3,928	4/2	1	34617687.29	66,283
10/1	14	95745731.08	4,233	4/2	2	30653210.05	75,750
10/1	15	93146685.36	5,274	4/2	3	29530092.04	78,545
10/1	16	88662059.03	7,265	4/2	4	30754564.73	75,558
10/1	17	86470300.61	8,287	4/2	5	37147824.41	60,458
10/1	18	86101077.03	8,385	4/2	6	54507986.20	27,505
10/1	19	94089504.09	4,816	4/2	7	72178137.39	7,455
10/1	20	98421688.51	3,151	4/2	8	81365152.60	2,215
10/1	21	89303804.04	6,976	4/2	9	82873773.07	1,610
10/1	22	73630840.75	16,621	4/2	10	86256886.65	775
10/1	23	55256115.84	33,703	4/2	11	88076387.06	393
10/1	24	41859802.60	49,936	4/2	12	88495216.40	189
10/2	1	42781881.42	70,610	4/2	13	90264653.14	158
10/2	2	39506999.05	78,396	4/2	14	89555547.58	268
10/2	3	38503137.73	80,791	4/2	15	88883709.95	188
10/2	4	38522706.77	80,768	4/2	16	88563015.33	371
10/2	5	46311731.05	62,514	4/2	17	86143771.02	602
10/2	6	73305015.10	16,090	4/2	18	76911823.14	4,245
10/2	7	95312367.99	737	4/2	19	75605527.13	5,123
10/2	8	93086126.02	1,403	4/2	20	86115144.96	782

10/2	9	96483964.12	659	4/2	21	82073377.93	1,899
10/2	10	99782360.62	220	4/2	22	64130350.74	14,784
10/2	11	100078272.72	49	4/2	23	49278584.74	35,945
10/2	12	101270968.38	0	4/2	24	43469476.97	46,901
10/2	13	99174166.48	62	4/3	1	36739770.25	45,220
10/2	14	98190617.10	299	4/3	2	32801988.86	53,194
10/2	15	94674582.07	979	4/3	3	30953817.35	57,089
10/2	16	92821640.15	1,539	4/3	4	31281103.74	56,386
10/2	17	87398345.73	4,074	4/3	5	32871048.16	53,069
10/2	18	84726113.50	5,754	4/3	6	45597198.76	29,578
10/2	19	95211157.99	745	4/3	7	51473602.10	20,958
10/2	20	99805557.20	85	4/3	8	57251810.88	14,008
10/2	21	89884828.34	2,741	4/3	9	63921859.02	7,737
10/2	22	73229872.62	16,123	4/3	10	68753439.76	4,349
10/2	23	58813770.34	37,345	4/3	11	70565698.53	3,474
10/2	24	46497608.01	62,100	4/3	12	70425829.41	3,367
10/3	1	38253448.00	72,756	4/3	13	70670836.74	3,286
10/3	2	35116874.95	80,038	4/3	14	70566959.52	3,465
10/3	3	33761067.30	83,179	4/3	15	68249840.33	4,714
10/3	4	34053679.51	82,434	4/3	16	66737207.61	5,726
10/3	5	38370691.74	72,455	4/3	17	64126034.87	7,526
10/3	6	64754417.49	22,638	4/3	18	58635534.02	12,574
10/3	7	85078099.36	3,430	4/3	19	57168328.95	14,166
10/3	8	87928066.21	2,222	4/3	20	66003232.72	6,293
10/3	9	92625676.19	561	4/3	21	61383690.51	9,832
10/3	10	94321357.17	249	4/3	22	50598505.84	22,197
10/3	11	95011052.99	365	4/3	23	38581728.99	41,700
10/3	12	94832049.55	220	4/3	24	33685236.28	51,346
10/3	13	94247305.85	390	4/4	1	30163486.93	46,829
10/3	14	92967142.85	584	4/4	2	27660780.84	51,742
10/3	15	86877761.74	2,514	4/4	3	25956893.19	55,043
10/3	16	83280333.05	4,352	4/4	4	25687045.81	55,611
10/3	17	77991895.05	8,166	4/4	5	26540101.72	53,974
10/3	18	76439717.70	9,624	4/4	6	27681345.91	51,707
10/3	19	86721145.24	2,643	4/4	7	30409472.85	46,391
10/3	20	88304392.63	1,896	4/4	8	37117114.33	34,233
10/3	21	78895023.38	7,469	4/4	9	44669782.43	22,440
10/3	22	65705686.70	21,358	4/4	10	49831607.46	15,846
10/3	23	48374833.07	50,696	4/4	11	51500400.73	14,097
10/3	24	38660980.77	71,823	4/4	12	50970989.18	14,648
10/4	1	33579475.99	45,587	4/4	13	48840842.61	17,125
10/4	2	28282535.22	54,456	4/4	14	46983777.84	19,315
10/4	3	26776591.04	56,791	4/4	15	44606910.99	22,543
10/4	4	25737843.44	58,431	4/4	16	43994556.46	23,474
10/4	5	27604069.78	55,471	4/4	17	44452120.61	22,784
10/4	6	34414988.63	44,241	4/4	18	43601584.54	24,068

10/4	7	42130269.13	31,796	4/4	19	45438409.78	21,530
10/4	8	47808106.41	23,563	4/4	20	53758883.44	11,667
10/4	9	57970610.22	11,661	4/4	21	51605682.45	13,952
10/4	10	66794158.14	4,518	4/4	22	43349199.01	24,338
10/4	11	68077240.72	3,888	4/4	23	34409725.38	38,983
10/4	12	65323582.54	5,639	4/4	24	30794109.79	45,556
10/4	13	61580093.36	8,232	4/5	1	25571699.55	43,008
10/4	14	58852119.91	10,815	4/5	2	22753476.43	47,993
10/4	15	56757263.92	12,759	4/5	3	22083592.49	49,220
10/4	16	55274446.13	14,242	4/5	4	22171311.89	49,092
10/4	17	55764989.10	13,745	4/5	5	22503279.59	48,500
10/4	18	56019797.05	13,659	4/5	6	23726159.86	46,353
10/4	19	65384436.35	5,463	4/5	7	27068954.55	40,469
10/4	20	64815284.49	5,939	4/5	8	30857782.42	33,986
10/4	21	57663268.30	11,834	4/5	9	33978617.46	28,972
10/4	22	48124204.41	22,957	4/5	10	36351376.05	25,534
10/4	23	37789195.94	38,630	4/5	11	37717928.43	23,434
10/4	24	32934140.89	46,727	4/5	12	38001965.05	23,116
10/5	1	27586324.68	40,562	4/5	13	36907663.19	24,685
10/5	2	23809682.26	45,411	4/5	14	35169291.95	27,268
10/5	3	22499587.93	46,980	4/5	15	33623575.30	29,587
10/5	4	21855715.60	47,554	4/5	16	33029430.07	30,567
10/5	5	23325155.01	46,034	4/5	17	35034292.63	27,346
10/5	6	27740317.20	40,482	4/5	18	36166863.29	25,636
10/5	7	30471194.30	36,555	4/5	19	41503040.27	18,476
10/5	8	32406863.31	33,931	4/5	20	55514553.12	5,001
10/5	9	39472406.81	24,301	4/5	21	50751506.62	8,604
10/5	10	43442497.25	19,200	4/5	22	42843183.84	16,792
10/5	11	46357062.93	15,828	4/5	23	33489681.87	29,874
10/5	12	47212807.14	15,030	4/5	24	28081321.39	38,660
10/5	13	47903764.24	14,331	4/6	1	31140934.46	36,507
10/5	14	45694569.54	16,661	4/6	2	28578076.68	41,037
10/5	15	44929801.73	17,539	4/6	3	27695490.78	42,571
10/5	16	44765420.73	17,608	4/6	4	27654356.52	42,633
10/5	17	46513796.57	15,646	4/6	5	31669855.63	35,678
10/5	18	50383807.69	11,707	4/6	6	45641718.89	15,507
10/5	19	61909201.38	3,198	4/6	7	64631623.25	1,412
10/5	20	63071444.56	2,583	4/6	8	72824889.23	19
10/5	21	56220463.09	6,726	4/6	9	75258899.38	111
10/5	22	48394052.46	13,741	4/6	10	82064005.80	1,559
10/5	23	37322105.35	27,031	4/6	11	84273874.20	2,112
10/5	24	32151005.64	34,238	4/6	12	83678347.33	2,056
10/6	1	31230824.30	71,221	4/6	13	82891707.11	1,631
10/6	2	28791983.06	76,132	4/6	14	86370595.35	3,205
10/6	3	28254690.08	77,136	4/6	15	84076298.87	2,083
10/6	4	29667483.04	74,374	4/6	16	81339541.43	1,164

10/6	5	36428608.35	60,584	4/6	17	79406815.15	612
10/6	6	61776948.27	17,947	4/6	18	77276027.29	215
10/6	7	81530134.40	1,918	4/6	19	78272327.98	350
10/6	8	84023382.52	1,086	4/6	20	86321502.73	3,186
10/6	9	86642669.63	338	4/6	21	83462329.74	1,816
10/6	10	91079783.02	34	4/6	22	69726975.75	309
10/6	11	91447023.19	-53	4/6	23	55206786.81	6,618
10/6	12	92466260.06	-54	4/6	24	42777191.01	19,080
10/6	13	92769934.02	-24	4/7	1	37471385.88	55,670
10/6	14	91811264.03	-111	4/7	2	33079097.79	65,567
10/6	15	91753362.28	-67	4/7	3	31229889.42	69,841
10/6	16	92343766.77	70	4/7	4	30828133.92	70,819
10/6	17	89056049.39	275	4/7	5	36437487.18	57,957
10/6	18	88766636.54	253	4/7	6	57314027.56	20,940
10/6	19	93290499.02	-45	4/7	7	77042937.22	3,176
10/6	20	94876777.63	205	4/7	8	86181626.15	300
10/6	21	88135075.19	260	4/7	9	92936901.67	-13
10/6	22	74629889.98	5,806	4/7	10	95657270.76	515
10/6	23	54199384.58	28,300	4/7	11	98382704.48	1,291
10/6	24	42855510.61	47,835	4/7	12	97792365.82	820
10/7	1	36014352.32	71,980	4/7	13	101090081.06	2,082
10/7	2	32027312.57	80,763	4/7	14	103216437.12	2,651
10/7	3	31230356.86	82,494	4/7	15	101238260.66	1,882
10/7	4	31656636.94	81,546	4/7	16	101784930.39	2,082
10/7	5	38516454.77	66,437	4/7	17	99956159.53	1,660
10/7	6	62793528.10	22,145	4/7	18	95049591.31	290
10/7	7	81266465.10	4,375	4/7	19	93593027.98	129
10/7	8	86246201.63	1,774	4/7	20	101929460.47	2,266
10/7	9	89397961.19	745	4/7	21	100638880.62	1,676
10/7	10	94139669.58	144	4/7	22	82024651.28	1,276
10/7	11	96150046.05	-108	4/7	23	58320159.49	19,512
10/7	12	97021025.81	57	4/7	24	48147501.44	34,774
10/7	13	97259644.49	-97	4/8	1	41875100.34	44,915
10/7	14	97817887.07	87	4/8	2	34984810.40	59,280
10/7	15	96944397.68	-121	4/8	3	32846320.18	64,135
10/7	16	94743678.26	-96	4/8	4	32811917.26	64,259
10/7	17	92710062.75	224	4/8	5	38430088.95	51,917
10/7	18	92094548.28	329	4/8	6	52857282.75	25,975
10/7	19	101477201.99	601	4/8	7	77434548.63	2,663
10/7	20	99587231.71	240	4/8	8	84519637.94	569
10/7	21	91636623.01	406	4/8	9	90614426.91	128
10/7	22	74654399.62	8,997	4/8	10	95568869.30	572
10/7	23	56174082.24	32,086	4/8	11	97464738.16	1,031
10/7	24	43230933.07	56,300	4/8	12	99496229.74	1,647
10/8	1	40834916.11	60,413	4/8	13	96084937.24	736
10/8	2	37148089.24	68,444	4/8	14	96627778.91	756

10/8	3	35267151.66	72,511	4/8	15	93354753.14	419
10/8	4	36143489.69	70,679	4/8	16	90276196.19	29
10/8	5	43383835.78	55,066	4/8	17	90676845.18	54
10/8	6	68484439.41	14,713	4/8	18	87187200.23	201
10/8	7	88799862.19	801	4/8	19	86366706.09	222
10/8	8	91943419.05	280	4/8	20	96042948.40	659
10/8	9	94583721.32	-83	4/8	21	88752258.07	-118
10/8	10	97370367.04	-98	4/8	22	75617012.79	3,475
10/8	11	98287160.58	221	4/8	23	56702664.39	20,651
10/8	12	97003053.92	183	4/8	24	44535351.50	39,830
10/8	13	97209875.41	-98	4/9	1	41377261.31	23,927
10/8	14	96969759.41	63	4/9	2	34203912.15	35,257
10/8	15	92834441.90	28	4/9	3	31191109.68	40,682
10/8	16	91320442.96	461	4/9	4	32765441.91	37,841
10/8	17	88783000.30	904	4/9	5	40819326.11	24,844
10/8	18	90538459.34	453	4/9	6	56639849.93	7,196
10/8	19	98031815.83	129	4/9	7	74423975.64	75
10/8	20	99442948.72	172	4/9	8	80505943.07	374
10/8	21	88477901.49	1,033	4/9	9	85468766.25	1,672
10/8	22	72950949.98	10,197	4/9	10	90415298.27	4,046
10/8	23	56598599.15	30,758	4/9	11	91311334.05	4,243
10/8	24	44117319.38	53,606	4/9	12	90500241.35	3,836
10/9	1	41343499.70	37,724	4/9	13	90764484.31	4,253
10/9	2	37016640.33	45,216	4/9	14	87997030.26	2,732
10/9	3	35391030.51	48,025	4/9	15	84648942.13	1,411
10/9	4	36730050.42	45,703	4/9	16	84716044.80	1,642
10/9	5	45195788.50	31,589	4/9	17	83712091.85	1,338
10/9	6	65388017.26	7,467	4/9	18	81292059.71	542
10/9	7	80354455.89	411	4/9	19	82226721.52	752
10/9	8	86157843.96	193	4/9	20	89871820.50	3,708
10/9	9	87707151.17	89	4/9	21	85474073.92	1,635
10/9	10	91050995.15	637	4/9	22	77028162.07	119
10/9	11	92043643.06	1,035	4/9	23	58008563.19	6,227
10/9	12	92901543.85	1,355	4/9	24	49627087.60	13,631
10/9	13	93768797.45	1,682	4/10	1	45500896.84	18,796
10/9	14	92540834.02	1,263	4/10	2	37778472.83	29,837
10/9	15	92999442.09	1,417	4/10	3	35909834.62	32,867
10/9	16	93348583.36	1,250	4/10	4	37635529.11	29,948
10/9	17	90385657.10	558	4/10	5	45477916.47	18,774
10/9	18	91075237.13	819	4/10	6	63686523.25	2,873
10/9	19	91989705.65	1,041	4/10	7	75819985.80	126
10/9	20	94483587.72	1,647	4/10	8	82954498.24	1,063
10/9	21	86047246.12	-43	4/10	9	84578046.65	1,484
10/9	22	71970722.99	3,256	4/10	10	85484689.98	1,835
10/9	23	55024193.65	17,774	4/10	11	81698159.38	680
10/9	24	44893673.53	32,050	4/10	12	80371072.50	287

10/10	1	39023317.70	28,771	4/10	13	77748237.06	140
10/10	2	34870053.64	34,939	4/10	14	75801396.82	-57
10/10	3	33300575.64	37,299	4/10	15	70139156.93	735
10/10	4	34282331.40	35,713	4/10	16	65255220.43	2,215
10/10	5	41383558.05	25,621	4/10	17	63477513.96	3,072
10/10	6	62034379.29	4,559	4/10	18	60588273.55	4,512
10/10	7	81083284.28	401	4/10	19	60974075.19	4,221
10/10	8	87999986.73	2,168	4/10	20	70773560.34	570
10/10	9	88930371.83	2,635	4/10	21	68834742.16	875
10/10	10	89930866.98	3,075	4/10	22	59811498.57	5,186
10/10	11	89534591.03	2,861	4/10	23	49690077.88	13,799
10/10	12	88471470.87	2,527	4/10	24	45097661.84	19,147
10/10	13	87087878.53	2,013	4/11	1	40494897.55	8,152
10/10	14	85602978.40	1,335	4/11	2	35629190.33	12,883
10/10	15	81408937.87	452	4/11	3	33685483.09	14,789
10/10	16	79805657.19	130	4/11	4	33968684.40	14,597
10/10	17	78211204.24	11	4/11	5	36700376.98	11,742
10/10	18	75719998.06	-59	4/11	6	41460319.10	7,369
10/10	19	80740506.02	151	4/11	7	45787779.89	4,412
10/10	20	80489306.39	260	4/11	8	51560399.04	1,437
10/10	21	73458495.17	395	4/11	9	54525439.27	642
10/10	22	63407046.02	3,872	4/11	10	57479934.95	110
10/10	23	49528963.66	15,430	4/11	11	56266157.31	200
10/10	24	38934491.20	28,941	4/11	12	53308256.29	1,008
10/11	1	36146086.22	32,042	4/11	13	50998264.53	1,883
10/11	2	31403654.69	39,016	4/11	14	48748349.41	2,788
10/11	3	30130675.94	40,900	4/11	15	46483913.17	3,867
10/11	4	29922336.23	41,076	4/11	16	45344795.09	4,541
10/11	5	32127623.04	37,848	4/11	17	46412684.63	3,985
10/11	6	38674064.48	28,428	4/11	18	45079089.93	4,895
10/11	7	49617627.71	14,693	4/11	19	47211548.27	3,655
10/11	8	58461724.60	6,608	4/11	20	56915528.57	370
10/11	9	69893391.57	973	4/11	21	54904460.93	605
10/11	10	76038430.47	154	4/11	22	48897625.64	2,817
10/11	11	75759362.43	-57	4/11	23	40141799.06	8,589
10/11	12	71417172.34	546	4/11	24	35233490.30	13,176
10/11	13	67392423.49	1,685	4/12	1	30952656.23	21,235
10/11	14	64153895.53	3,115	4/12	2	27446789.01	26,113
10/11	15	62006035.63	4,391	4/12	3	26254549.78	27,782
10/11	16	60924902.71	4,897	4/12	4	25930920.94	28,202
10/11	17	62660302.97	4,010	4/12	5	27806042.42	25,649
10/11	18	63337801.00	3,508	4/12	6	31275722.23	20,841
10/11	19	70707451.28	644	4/12	7	33909625.97	17,676
10/11	20	73768753.08	223	4/12	8	38058794.94	12,907
10/11	21	67933579.80	1,414	4/12	9	43277029.11	8,073
10/11	22	57159299.37	7,539	4/12	10	44428619.15	7,004

10/11	23	45933560.02	18,909	4/12	11	45197313.41	6,579
10/11	24	37109439.66	30,519	4/12	12	45713631.16	6,236
10/12	1	33266075.36	18,578	4/12	13	46011363.53	5,856
10/12	2	30374865.72	21,660	4/12	14	45127510.22	6,453
10/12	3	28562293.65	23,556	4/12	15	44354256.88	7,178
10/12	4	27946458.26	24,265	4/12	16	44634107.15	6,892
10/12	5	30206818.57	21,908	4/12	17	46427608.12	5,710
10/12	6	35814820.60	16,066	4/12	18	47573202.66	4,813
10/12	7	44074174.58	8,383	4/12	19	50565101.91	3,226
10/12	8	48798931.10	5,267	4/12	20	61744871.29	97
10/12	9	57304981.42	1,060	4/12	21	64293722.64	182
10/12	10	60473478.42	331	4/12	22	54069495.45	1,572
10/12	11	59590142.07	685	4/12	23	43089615.48	8,070
10/12	12	58031927.74	849	4/12	24	37669757.23	13,204
10/12	13	55477782.33	1,707	4/13	1	34746733.98	30,169
10/12	14	52946094.76	2,737	4/13	2	31480218.67	35,541
10/12	15	51638572.78	3,550	4/13	3	30742777.67	36,739
10/12	16	51412672.62	3,600	4/13	4	32921758.14	33,074
10/12	17	53748517.33	2,547	4/13	5	40432093.04	21,747
10/12	18	60303643.90	517	4/13	6	54892883.86	6,632
10/12	19	68622758.24	228	4/13	7	67222200.19	680
10/12	20	69963129.13	355	4/13	8	75185839.62	18
10/12	21	70255987.46	414	4/13	9	79712465.33	865
10/12	22	61283000.18	375	4/13	10	84757283.99	2,396
10/12	23	48200508.48	5,559	4/13	11	84288681.93	2,482
10/12	24	41668201.05	10,610	4/13	12	83075455.77	1,840
10/13	1	37659058.53	40,828	4/13	13	83636536.74	2,109
10/13	2	35469606.28	44,489	4/13	14	83960486.19	2,305
10/13	3	34919672.26	45,517	4/13	15	79549682.71	672
10/13	4	36837596.94	42,208	4/13	16	78690245.84	756
10/13	5	44553460.00	29,698	4/13	17	78357052.49	465
10/13	6	72708862.96	2,056	4/13	18	74024250.53	123
10/13	7	92178586.21	1,741	4/13	19	76085457.41	317
10/13	8	102790377.49	7,400	4/13	20	84467477.67	2,292
10/13	9	107201525.39	11,006	4/13	21	81372604.22	1,362
10/13	10	107952598.48	11,597	4/13	22	69567501.79	242
10/13	11	108722944.39	12,113	4/13	23	59040440.97	3,902
10/13	12	108456941.29	12,130	4/13	24	47960079.16	12,637
10/13	13	105191472.60	9,162	4/14	1	42389467.70	25,213
10/13	14	99468779.38	5,174	4/14	2	35810951.59	35,919
10/13	15	96804465.77	3,669	4/14	3	33878389.68	39,247
10/13	16	95877745.79	3,068	4/14	4	34156025.21	38,722
10/13	17	96132190.47	3,246	4/14	5	41596908.56	26,468
10/13	18	99099001.28	4,905	4/14	6	56202264.24	9,192
10/13	19	106432183.15	10,171	4/14	7	69320276.14	1,336
10/13	20	107973721.71	11,465	4/14	8	76100545.96	68

10/13	21	101680457.10	6,699	4/14	9	83210738.13	556
10/13	22	84535912.85	87	4/14	10	87348833.17	1,725
10/13	23	64342871.24	7,065	4/14	11	90169839.54	2,876
10/13	24	50890554.85	20,782	4/14	12	90714613.19	3,180
10/14	1	43212917.95	28,073	4/14	13	91041400.65	3,159
10/14	2	39115313.24	34,203	4/14	14	90252609.34	2,678
10/14	3	37946809.72	36,031	4/14	15	88523420.17	2,209
10/14	4	39761713.62	33,138	4/14	16	85992954.82	1,224
10/14	5	47181971.89	22,525	4/14	17	84876767.35	959
10/14	6	73234621.36	949	4/14	18	80815095.30	225
10/14	7	96768582.18	4,923	4/14	19	80189808.40	6
10/14	8	103656517.62	9,788	4/14	20	87556332.58	1,717
10/14	9	105052022.67	10,979	4/14	21	85217647.29	1,019
10/14	10	108760819.15	14,753	4/14	22	73432106.09	331
10/14	11	107839611.17	13,872	4/14	23	63156000.84	3,979
10/14	12	106520358.45	12,694	4/14	24	50553199.39	14,669
10/14	13	105172423.39	11,433	4/15	1	44124213.38	25,673
10/14	14	104604333.47	10,587	4/15	2	38424661.80	34,771
10/14	15	102126785.00	8,831	4/15	3	36613294.68	38,100
10/14	16	98810533.81	6,458	4/15	4	37884996.76	35,705
10/14	17	98924668.79	6,486	4/15	5	44893673.53	24,635
10/14	18	99781281.81	7,111	4/15	6	60359215.57	7,325
10/14	19	109464370.45	15,380	4/15	7	73670287.25	848
10/14	20	107064701.35	12,960	4/15	8	77798277.50	112
10/14	21	100729547.56	7,599	4/15	9	81813587.31	-30
10/14	22	85115616.75	411	4/15	10	86359414.08	891
10/14	23	65450506.90	4,657	4/15	11	89315756.55	1,714
10/14	24	52244692.19	16,262	4/15	12	90381638.50	1,984
10/15	1	43537127.49	37,605	4/15	13	94284067.36	3,874
10/15	2	39291224.15	45,101	4/15	14	97093466.24	5,164
10/15	3	38354972.05	46,832	4/15	15	91781801.96	2,640
10/15	4	40205960.67	43,476	4/15	16	89126643.79	1,581
10/15	5	49834879.46	27,551	4/15	17	87386088.27	1,142
10/15	6	76580505.46	2,148	4/15	18	82410347.98	107
10/15	7	94561405.15	1,165	4/15	19	83133617.22	73
10/15	8	102550313.45	4,477	4/15	20	92689600.32	3,105
10/15	9	104569180.33	5,929	4/15	21	88044342.40	1,194
10/15	10	105012284.24	6,247	4/15	22	76395203.45	352
10/15	11	104017890.20	5,537	4/15	23	65772789.92	3,817
10/15	12	103285542.87	5,164	4/15	24	51553692.83	15,818
10/15	13	101996848.78	4,192	4/16	1	43529409.13	18,682
10/15	14	98328786.02	2,317	4/16	2	37883922.39	26,468
10/15	15	96349244.89	1,669	4/16	3	35526248.30	30,261
10/15	16	92202024.80	539	4/16	4	36557765.81	28,496
10/15	17	93220113.10	800	4/16	5	44270067.99	17,797
10/15	18	97295129.40	2,051	4/16	6	59331155.04	4,234

10/15	19	107082294.07	7,413	4/16	7	69523827.68	385
10/15	20	105386589.70	6,237	4/16	8	76014481.40	95
10/15	21	95409999.38	1,322	4/16	9	79776727.19	546
10/15	22	81687884.04	627	4/16	10	83858113.99	1,991
10/15	23	65257206.97	9,322	4/16	11	86864092.39	3,124
10/15	24	51010907.90	25,890	4/16	12	90072592.26	4,857
10/16	1	49900024.56	27,507	4/16	13	99666974.94	11,673
10/16	2	45169565.73	35,051	4/16	14	100811035.06	13,056
10/16	3	43376137.00	38,007	4/16	15	96988255.34	9,495
10/16	4	44011907.96	36,872	4/16	16	95756727.31	8,695
10/16	5	50425704.74	26,731	4/16	17	93593027.98	6,987
10/16	6	74503494.83	3,108	4/16	18	87447878.50	3,430
10/16	7	98865714.00	2,883	4/16	19	84272441.29	1,902
10/16	8	111057149.32	10,925	4/16	20	92694204.08	6,572
10/16	9	114244498.14	13,802	4/16	21	88397295.65	3,808
10/16	10	117617977.82	17,210	4/16	22	77209186.20	291
10/16	11	115356752.18	14,635	4/16	23	62727469.31	2,305
10/16	12	115490936.30	15,091	4/16	24	50762116.39	10,807
10/16	13	114595117.82	14,191	4/17	1	44826027.43	13,134
10/16	14	111345821.55	11,197	4/17	2	40209044.53	18,569
10/16	15	110719011.81	10,555	4/17	3	38096805.40	21,286
10/16	16	108207417.43	8,333	4/17	4	37851970.03	21,637
10/16	17	107535312.33	7,735	4/17	5	45895310.55	12,027
10/16	18	111269372.96	10,850	4/17	6	56400181.03	3,776
10/16	19	115880946.03	15,277	4/17	7	68103868.57	-65
10/16	20	116845613.44	16,277	4/17	8	75834593.73	626
10/16	21	109258086.75	9,438	4/17	9	81876725.05	2,670
10/16	22	96162651.42	1,784	4/17	10	87284154.13	5,533
10/16	23	73085357.96	3,759	4/17	11	87637368.20	5,677
10/16	24	57944710.30	16,850	4/17	12	88376040.35	6,154
10/17	1	48103467.31	5,851	4/17	13	85712681.38	4,340
10/17	2	43715517.36	8,948	4/17	14	86190849.09	4,661
10/17	3	42110556.53	10,450	4/17	15	81236689.59	2,301
10/17	4	42584326.46	9,977	4/17	16	77173315.54	927
10/17	5	52207802.35	3,455	4/17	17	74581762.92	212
10/17	6	73174199.35	1,214	4/17	18	70333113.62	-85
10/17	7	93663101.12	15,680	4/17	19	68292526.25	44
10/17	8	101071025.18	24,154	4/17	20	73877305.23	158
10/17	9	103228044.56	27,376	4/17	21	71827576.53	166
10/17	10	103815720.82	27,918	4/17	22	62481445.90	1,187
10/17	11	102846597.61	26,809	4/17	23	48667561.59	9,367
10/17	12	103053479.55	27,208	4/17	24	40069320.88	18,744
10/17	13	101937676.84	25,364	4/18	1	39496480.70	6,267
10/17	14	96029304.88	18,087	4/18	2	33869221.06	10,911
10/17	15	92015653.83	13,624	4/18	3	31685439.89	13,134
10/17	16	89879825.17	11,689	4/18	4	31715679.66	13,041

10/17	17	88717062.67	10,769	4/18	5	34528414.38	10,194
10/17	18	91284517.19	13,067	4/18	6	38764374.38	6,715
10/17	19	92825736.57	14,506	4/18	7	44951974.77	2,950
10/17	20	95951143.89	18,208	4/18	8	51474271.94	565
10/17	21	90600839.93	12,219	4/18	9	57365429.17	9
10/17	22	74778787.74	1,798	4/18	10	57387520.33	134
10/17	23	60634235.51	279	4/18	11	57165078.19	-143
10/17	24	49723391.32	4,773	4/18	12	56047567.20	-92
10/18	1	38072001.15	11,729	4/18	13	53695672.58	98
10/18	2	34709648.08	15,051	4/18	14	52133740.93	554
10/18	3	33018481.19	16,534	4/18	15	50529069.94	905
10/18	4	32196613.05	17,363	4/18	16	49916402.31	957
10/18	5	34059401.05	15,668	4/18	17	51140465.83	635
10/18	6	40430685.68	9,787	4/18	18	48701345.55	1,161
10/18	7	49853860.15	3,418	4/18	19	49408212.49	979
10/18	8	57102256.17	774	4/18	20	57535435.13	114
10/18	9	64388111.85	49	4/18	21	54679899.40	210
10/18	10	68373025.03	548	4/18	22	48888266.07	1,157
10/18	11	67582512.80	500	4/18	23	39713343.83	5,904
10/18	12	63782614.85	164	4/18	24	34948048.56	9,896
10/18	13	61587714.97	150	4/19	1	32902583.64	11,886
10/18	14	56952982.96	851	4/19	2	29860738.62	15,245
10/18	15	54198341.80	1,611	4/19	3	28659942.06	16,554
10/18	16	53305508.56	1,891	4/19	4	28894394.67	16,152
10/18	17	54792272.50	1,406	4/19	5	30747399.66	14,114
10/18	18	59442156.18	366	4/19	6	34334599.35	10,705
10/18	19	66205748.00	301	4/19	7	36884472.77	8,369
10/18	20	66665766.01	222	4/19	8	37975321.86	7,485
10/18	21	64920515.42	-75	4/19	9	42825578.59	3,983
10/18	22	56459224.23	900	4/19	10	45189384.25	2,698
10/18	23	45205243.58	6,211	4/19	11	46680275.50	2,204
10/18	24	39431754.24	10,584	4/19	12	46274185.68	2,394
10/19	1	34547009.69	33,764	4/19	13	45491090.86	2,588
10/19	2	31072183.99	38,789	4/19	14	44119117.74	3,356
10/19	3	29812792.07	40,768	4/19	15	42516578.02	4,315
10/19	4	30262531.23	39,990	4/19	16	41805859.69	4,624
10/19	5	33594006.91	35,208	4/19	17	43253681.18	3,856
10/19	6	36989440.36	30,273	4/19	18	44570366.06	3,119
10/19	7	42094327.61	23,185	4/19	19	46885062.50	1,965
10/19	8	45819496.41	18,586	4/19	20	56557370.00	133
10/19	9	52510921.25	11,455	4/19	21	58683737.23	37
10/19	10	59025285.42	5,900	4/19	22	52943702.26	194
10/19	11	58463927.05	6,358	4/19	23	40692780.83	5,352
10/19	12	55671024.79	8,626	4/19	24	36329740.88	8,881
10/19	13	54165675.20	9,895	4/20	1	36153097.52	18,196
10/19	14	50599167.46	13,348	4/20	2	33748955.74	21,256

10/19	15	50165492.09	13,607	4/20	3	33304981.79	21,858
10/19	16	50226670.13	13,574	4/20	4	35739557.94	18,709
10/19	17	52749827.35	11,224	4/20	5	42140127.92	11,523
10/19	18	58821512.56	6,174	4/20	6	56279370.78	1,835
10/19	19	76034438.58	-137	4/20	7	68483616.69	241
10/19	20	74093883.78	11	4/20	8	81282286.54	4,658
10/19	21	67264422.40	1,658	4/20	9	86439650.66	7,958
10/19	22	56351191.08	8,045	4/20	10	91759963.78	12,422
10/19	23	45282462.49	19,131	4/20	11	91262258.43	12,299
10/19	24	40159443.15	25,752	4/20	12	87685524.00	9,129
10/20	1	39245195.70	19,917	4/20	13	83324384.12	5,729
10/20	2	36943787.35	22,769	4/20	14	82182150.92	5,096
10/20	3	36890532.89	22,839	4/20	15	78421886.35	3,234
10/20	4	39170310.34	20,152	4/20	16	75457210.03	1,713
10/20	5	46366381.65	12,394	4/20	17	73851676.56	1,399
10/20	6	67848959.09	153	4/20	18	69938903.23	408
10/20	7	90253612.94	7,159	4/20	19	69733226.82	351
10/20	8	96126414.18	11,865	4/20	20	84039588.58	6,183
10/20	9	96980856.67	12,583	4/20	21	81431768.83	4,666
10/20	10	94859092.62	10,815	4/20	22	72261480.07	912
10/20	11	94477882.92	10,214	4/20	23	59905586.01	644
10/20	12	92872342.53	8,920	4/20	24	48817949.27	5,809
10/20	13	92139870.97	8,466	4/21	1	43803418.42	7,043
10/20	14	89468750.60	6,483	4/21	2	41182975.00	9,442
10/20	15	85597181.94	4,024	4/21	3	39854680.20	10,459
10/20	16	83501230.69	2,870	4/21	4	40922583.28	9,474
10/20	17	82188718.12	2,217	4/21	5	47750650.86	4,473
10/20	18	87183773.99	5,086	4/21	6	59528758.99	170
10/20	19	92616473.73	8,713	4/21	7	70940082.53	1,563
10/20	20	95228890.23	11,105	4/21	8	77525815.60	4,527
10/20	21	88507585.68	5,586	4/21	9	83651263.76	8,518
10/20	22	72711439.88	-58	4/21	10	84103004.51	9,077
10/20	23	59768597.22	2,532	4/21	11	83149226.50	8,359
10/20	24	48917640.07	9,908	4/21	12	81159960.84	6,670
10/21	1	37799921.24	29,424	4/21	13	81297179.33	6,786
10/21	2	34819980.28	33,807	4/21	14	79543726.20	5,590
10/21	3	32917631.30	36,572	4/21	15	75737688.09	3,587
10/21	4	34759354.73	33,794	4/21	16	73829962.36	2,507
10/21	5	41624782.66	24,201	4/21	17	71963475.54	1,881
10/21	6	62778071.27	3,888	4/21	18	70102336.19	1,274
10/21	7	83845264.31	902	4/21	19	70196926.58	1,214
10/21	8	89455287.54	3,382	4/21	20	78784395.92	5,347
10/21	9	89319242.91	3,217	4/21	21	78149210.11	4,960
10/21	10	91268834.48	4,299	4/21	22	68687870.50	902
10/21	11	90134741.60	3,510	4/21	23	58365242.79	182
10/21	12	88693274.30	2,774	4/21	24	47722100.31	4,465

10/21	13	87315509.35	2,156	4/22	1	40169247.84	16,206
10/21	14	85851525.60	1,613	4/22	2	36177774.69	21,189
10/21	15	84921905.03	1,394	4/22	3	34662260.04	23,299
10/21	16	82460179.90	644	4/22	4	35932323.67	21,414
10/21	17	82155416.91	741	4/22	5	41679132.66	14,443
10/21	18	84732346.94	1,316	4/22	6	57122108.33	2,335
10/21	19	92361112.88	4,745	4/22	7	73933797.77	796
10/21	20	89985434.72	3,426	4/22	8	72569378.31	390
10/21	21	83951912.05	1,194	4/22	9	73054755.87	382
10/21	22	71456185.52	546	4/22	10	76849678.49	1,558
10/21	23	54645275.78	9,745	4/22	11	76494495.82	1,429
10/21	24	44182993.70	20,869	4/22	12	75785023.53	1,204
10/22	1	40148800.02	19,424	4/22	13	78143781.65	2,096
10/22	2	36777090.60	23,556	4/22	14	77204701.71	1,703
10/22	3	35779494.81	24,680	4/22	15	73126318.85	509
10/22	4	36807071.75	23,492	4/22	16	68577041.40	1
10/22	5	42558035.52	16,626	4/22	17	67449369.12	-137
10/22	6	60913937.36	2,325	4/22	18	63700578.92	252
10/22	7	76834036.25	399	4/22	19	60066378.02	1,174
10/22	8	80651156.87	1,479	4/22	20	74302630.24	722
10/22	9	80133598.05	1,376	4/22	21	71124216.63	161
10/22	10	82390609.26	2,395	4/22	22	63855338.74	238
10/22	11	81223200.15	1,921	4/22	23	53469520.35	4,409
10/22	12	81563252.95	1,945	4/22	24	43472739.07	12,430
10/22	13	82244554.63	2,373	4/23	1	39567103.01	12,293
10/22	14	81975945.47	2,168	4/23	2	36577403.52	15,530
10/22	15	81456934.81	2,003	4/23	3	34887768.74	17,653
10/22	16	80548470.27	1,520	4/23	4	36409289.21	15,815
10/22	17	81085607.05	1,856	4/23	5	42842596.91	9,201
10/22	18	82548143.81	2,336	4/23	6	56294372.55	1,093
10/22	19	88897607.39	5,644	4/23	7	68976464.27	621
10/22	20	86016219.50	4,175	4/23	8	75435597.98	2,634
10/22	21	82110874.14	2,265	4/23	9	78788036.19	4,380
10/22	22	70540902.35	-45	4/23	10	79350543.17	4,579
10/22	23	56061456.00	4,931	4/23	11	80457426.34	5,214
10/22	24	46911371.97	12,132	4/23	12	80047034.36	4,925
10/23	1	41896177.40	35,584	4/23	13	80073272.62	5,102
10/23	2	37288636.08	43,390	4/23	14	81657063.61	6,046
10/23	3	36192067.02	45,255	4/23	15	76533258.39	3,227
10/23	4	36345901.22	45,000	4/23	16	74558145.08	2,253
10/23	5	42441036.79	34,735	4/23	17	71755229.39	1,242
10/23	6	65722058.53	6,850	4/23	18	68317982.76	490
10/23	7	87714524.95	126	4/23	19	66536342.95	172
10/23	8	90019489.05	730	4/23	20	78926912.12	4,440
10/23	9	90895048.58	799	4/23	21	78509450.63	4,273
10/23	10	93332646.13	1,584	4/23	22	68064543.92	506

10/23	11	91941384.86	1,207	4/23	23	54727138.88	1,722
10/23	12	92655844.42	1,426	4/23	24	45064175.49	7,257
10/23	13	94999597.82	2,139	4/24	1	42368794.48	28,381
10/23	14	92749973.83	1,513	4/24	2	36841282.25	37,540
10/23	15	91922061.66	1,332	4/24	3	34259091.84	42,362
10/23	16	89778304.03	615	4/24	4	35350128.69	40,313
10/23	17	89794801.84	508	4/24	5	41121113.30	30,238
10/23	18	92584270.31	1,542	4/24	6	55637367.24	11,543
10/23	19	99090413.59	4,347	4/24	7	77845183.27	95
10/23	20	95000639.16	2,132	4/24	8	82322020.19	62
10/23	21	87653090.45	200	4/24	9	87543568.25	1,121
10/23	22	73989886.50	2,053	4/24	10	89682360.03	1,727
10/23	23	60326168.51	11,291	4/24	11	88888176.81	1,442
10/23	24	48551858.94	25,501	4/24	12	89505656.85	1,854
10/24	1	44378031.01	21,934	4/24	13	90407259.29	2,177
10/24	2	39428160.57	28,564	4/24	14	90919260.66	2,314
10/24	3	37836940.35	30,930	4/24	15	85404128.21	596
10/24	4	39348331.32	28,658	4/24	16	80237286.79	-114
10/24	5	47394967.36	18,021	4/24	17	75141412.59	338
10/24	6	70594705.42	1,084	4/24	18	69754483.47	1,792
10/24	7	93051240.29	4,796	4/24	19	66728728.61	3,352
10/24	8	97676517.14	7,678	4/24	20	78316720.83	-69
10/24	9	98754840.39	8,424	4/24	21	74259887.79	547
10/24	10	102437029.23	11,623	4/24	22	64945852.49	4,215
10/24	11	101821596.39	11,154	4/24	23	49300334.68	18,571
10/24	12	101081369.48	10,725	4/24	24	40756725.86	30,972
10/24	13	98565972.63	8,484	4/25	1	35133153.82	26,346
10/24	14	94663156.13	5,708	4/25	2	32595919.77	30,308
10/24	15	92473919.77	4,193	4/25	3	30499216.63	33,689
10/24	16	90868824.06	3,559	4/25	4	29752259.75	34,886
10/24	17	89340163.15	2,641	4/25	5	31540907.44	31,864
10/24	18	91169724.19	3,729	4/25	6	36457078.36	24,533
10/24	19	97300956.17	7,428	4/25	7	38094917.71	22,100
10/24	20	93353724.82	5,017	4/25	8	48966732.65	9,795
10/24	21	85811355.41	1,228	4/25	9	57902412.86	3,389
10/24	22	74513548.31	203	4/25	10	60329172.25	2,080
10/24	23	57329227.40	8,144	4/25	11	61547709.10	1,815
10/24	24	46929230.88	18,745	4/25	12	59549586.93	2,659
10/25	1	38148608.27	10,184	4/25	13	58632591.24	3,035
10/25	2	34376404.92	13,472	4/25	14	55230390.31	4,822
10/25	3	31348077.38	16,267	4/25	15	51601991.62	7,547
10/25	4	31275956.19	16,352	4/25	16	50683244.40	8,188
10/25	5	34438555.04	13,532	4/25	17	51371524.43	7,702
10/25	6	41783086.03	7,532	4/25	18	50085318.42	8,726
10/25	7	54554420.24	943	4/25	19	49267225.58	9,458
10/25	8	59390535.06	9	4/25	20	65723655.94	613

10/25	9	60756420.27	94	4/25	21	60947594.15	1,991
10/25	10	66088194.64	507	4/25	22	52217615.25	7,000
10/25	11	65582393.44	303	4/25	23	42404904.56	16,628
10/25	12	62853835.94	158	4/25	24	34194181.21	27,806
10/25	13	61550756.50	101	4/26	1	30345781.02	39,076
10/25	14	58410718.02	275	4/26	2	26467415.92	46,050
10/25	15	56359056.02	497	4/26	3	24091752.18	50,491
10/25	16	56220463.09	489	4/26	4	23927740.72	50,725
10/25	17	58563833.97	206	4/26	5	25259981.12	48,301
10/25	18	64026435.68	213	4/26	6	27671918.89	43,827
10/25	19	72549222.64	2,597	4/26	7	29662077.67	40,303
10/25	20	69211200.12	1,067	4/26	8	38235870.20	26,085
10/25	21	65729247.10	433	4/26	9	42785985.82	19,811
10/25	22	59061145.76	4	4/26	10	46752736.93	14,980
10/25	23	47961034.06	3,455	4/26	11	49364976.00	12,183
10/25	24	39409919.40	9,116	4/26	12	50354791.36	11,142
10/26	1	34809365.32	18,368	4/26	13	53696363.12	8,122
10/26	2	31228954.56	22,328	4/26	14	53438891.04	8,450
10/26	3	29595469.77	24,177	4/26	15	51908640.90	9,770
10/26	4	29260699.21	24,535	4/26	16	52182768.56	9,495
10/26	5	31429943.74	22,190	4/26	17	55076921.50	7,112
10/26	6	35765577.68	17,462	4/26	18	55475661.47	6,732
10/26	7	47582696.76	6,655	4/26	19	56906167.75	5,675
10/26	8	50570392.56	4,837	4/26	20	74593573.86	95
10/26	9	55289607.18	2,344	4/26	21	67165798.37	741
10/26	10	60070121.06	584	4/26	22	54295034.52	7,811
10/26	11	59498270.39	825	4/26	23	45042266.85	17,078
10/26	12	57975718.23	1,369	4/26	24	35751149.21	29,938
10/26	13	55454456.11	2,366	4/27	1	33896980.21	37,817
10/26	14	52861720.80	3,491	4/27	2	31199750.35	42,712
10/26	15	52006761.73	4,002	4/27	3	30401678.04	44,124
10/26	16	52745396.06	3,661	4/27	4	31600973.27	41,957
10/26	17	57020733.99	1,506	4/27	5	38752360.70	29,741
10/26	18	66771939.23	88	4/27	6	56413417.15	8,356
10/26	19	72448504.75	736	4/27	7	70809370.44	810
10/26	20	72336761.65	915	4/27	8	80890661.69	470
10/26	21	66806279.79	137	4/27	9	86385181.19	1,598
10/26	22	58962105.88	1,109	4/27	10	90260136.58	3,389
10/26	23	47643174.51	6,634	4/27	11	90501246.94	3,214
10/26	24	40141519.04	13,088	4/27	12	90689433.26	3,400
10/27	1	35544715.86	24,121	4/27	13	90350498.69	3,141
10/27	2	32945069.63	27,423	4/27	14	90528400.85	3,394
10/27	3	32487343.99	27,995	4/27	15	85397859.22	1,411
10/27	4	34217638.67	25,869	4/27	16	82273656.74	499
10/27	5	42149698.34	16,364	4/27	17	77403544.48	-29
10/27	6	61038042.12	1,942	4/27	18	73068547.22	387

10/27	7	91153550.28	7,672	4/27	19	71804164.36	454
10/27	8	100190754.96	16,092	4/27	20	81835564.61	532
10/27	9	100427372.30	16,616	4/27	21	82577323.22	743
10/27	10	103518536.08	19,956	4/27	22	70252216.55	728
10/27	11	104950179.65	21,817	4/27	23	58874621.79	6,268
10/27	12	105885092.48	22,694	4/27	24	45443920.86	20,010
10/27	13	102827855.11	18,925	4/28	1	41276893.08	19,140
10/27	14	101072114.02	16,953	4/28	2	36215983.27	26,052
10/27	15	99889744.80	16,011	4/28	3	34849056.99	28,169
10/27	16	96298234.34	12,148	4/28	4	35713294.42	26,882
10/27	17	95834774.25	11,644	4/28	5	41987792.43	18,298
10/27	18	97227345.44	13,201	4/28	6	61412970.01	2,096
10/27	19	104163026.70	20,901	4/28	7	79959618.20	1,147
10/27	20	106735364.53	23,755	4/28	8	85687542.25	3,664
10/27	21	97431329.62	13,463	4/28	9	89266459.89	5,711
10/27	22	84482309.88	3,627	4/28	10	91358910.00	6,832
10/27	23	64769037.62	891	4/28	11	89430858.29	5,701
10/27	24	49640137.86	9,009	4/28	12	87043381.46	4,422
10/28	1	43011282.28	38,971	4/28	13	86309840.11	4,044
10/28	2	39193700.95	45,730	4/28	14	85136304.51	3,182
10/28	3	38306487.07	47,273	4/28	15	79893871.40	1,276
10/28	4	39729184.44	44,711	4/28	16	76554204.97	393
10/28	5	50588582.22	26,739	4/28	17	75423691.19	378
10/28	6	74370269.26	3,266	4/28	18	71013526.03	-127
10/28	7	101794780.03	4,228	4/28	19	69629511.33	-45
10/28	8	110745174.94	10,255	4/28	20	80589626.11	1,464
10/28	9	107507989.94	7,781	4/28	21	83494588.14	2,561
10/28	10	110544123.94	10,270	4/28	22	69689061.26	125
10/28	11	106480220.86	7,081	4/28	23	54024399.35	6,385
10/28	12	106622164.52	6,984	4/28	24	48136330.62	11,390
10/28	13	106244138.63	6,984	4/29	1	43498545.54	29,865
10/28	14	103713078.40	5,032	4/29	2	37364903.11	40,498
10/28	15	104521764.97	5,713	4/29	3	36303686.72	42,531
10/28	16	103380133.48	4,834	4/29	4	37695978.27	39,824
10/28	17	101063403.55	3,617	4/29	5	45830277.47	26,225
10/28	18	102910561.11	4,744	4/29	6	64787612.57	5,689
10/28	19	109709046.66	9,343	4/29	7	82068223.16	76
10/28	20	106757448.61	7,318	4/29	8	86052579.64	175
10/28	21	100212396.59	3,436	4/29	9	86575445.53	334
10/28	22	89704840.28	287	4/29	10	86009918.20	130
10/28	23	65725253.38	9,141	4/29	11	87890152.57	627
10/28	24	50736920.78	26,617	4/29	12	86119996.35	387
10/29	1	44797837.97	33,121	4/29	13	84946401.86	14
10/29	2	40591635.26	40,049	4/29	14	84921905.03	178
10/29	3	38728887.15	43,292	4/29	15	80098596.10	-41
10/29	4	39650581.98	41,612	4/29	16	77568553.33	439

10/29	5	48538694.27	27,216	4/29	17	75314388.49	803
10/29	6	69693226.96	4,874	4/29	18	70837606.42	2,298
10/29	7	97955145.95	2,840	4/29	19	68109604.79	3,791
10/29	8	105520743.39	7,663	4/29	20	85427278.08	70
10/29	9	106254861.46	8,198	4/29	21	83855734.32	184
10/29	10	110097062.63	11,293	4/29	22	69397492.05	3,072
10/29	11	109616092.63	10,998	4/29	23	57286530.47	12,017
10/29	12	108604216.94	9,963	4/29	24	46290938.75	25,557
10/29	13	105748355.60	7,812	4/30	1	41961189.00	42,070
10/29	14	104450949.70	6,939	4/30	2	37226536.21	51,492
10/29	15	102140498.30	5,327	4/30	3	35415843.83	55,264
10/29	16	102228294.79	5,533	4/30	4	35898723.08	54,257
10/29	17	102242017.90	5,447	4/30	5	43768838.77	38,620
10/29	18	109243691.93	10,455	4/30	6	64310626.71	10,527
10/29	19	117110530.26	18,587	4/30	7	83676446.53	367
10/29	20	115340585.79	16,396	4/30	8	90201937.70	-59
10/29	21	104430882.36	6,678	4/30	9	94697956.42	962
10/29	22	90955587.50	454	4/30	10	98297298.94	1,900
10/29	23	65167061.77	8,211	4/30	11	99011539.21	2,037
10/29	24	50960347.99	23,921	4/30	12	99114567.85	2,105
10/30	1	44524790.65	42,378	4/30	13	100140991.98	2,493
10/30	2	40542258.52	49,900	4/30	14	100726832.13	2,808
10/30	3	38778848.97	53,258	4/30	15	96031928.52	1,118
10/30	4	39666404.56	51,631	4/30	16	95589787.41	1,148
10/30	5	49834552.25	33,197	4/30	17	90167332.22	162
10/30	6	70461512.75	7,822	4/30	18	84277217.72	97
10/30	7	94780579.06	316	4/30	19	80098135.63	1,000
10/30	8	100870279.08	2,159	4/30	20	92605227.17	412
10/30	9	101063947.94	2,036	4/30	21	92281544.15	473
10/30	10	103311535.24	3,025	4/30	22	74777911.24	3,179
10/30	11	105072175.87	4,046	4/30	23	55211718.28	20,748
10/30	12	103599424.87	3,090	4/30	24	45996536.50	34,761
10/30	13	104044015.14	3,304	5/1	1	38500420.38	19,103
10/30	14	103710305.29	3,143	5/1	2	34808354.49	24,056
10/30	15	101043806.98	2,160	5/1	3	34179463.83	24,966
10/30	16	98384840.31	1,350	5/1	4	35301091.45	23,475
10/30	17	97728583.67	929	5/1	5	37330874.69	20,727
10/30	18	111174302.68	8,044	5/1	6	50319196.86	6,989
10/30	19	114009202.08	10,221	5/1	7	69362197.53	4
10/30	20	106389245.00	4,625	5/1	8	78576191.88	1,757
10/30	21	94108119.96	204	5/1	9	84264799.42	4,348
10/30	22	81324643.05	1,659	5/1	10	87924619.03	6,839
10/30	23	62237653.94	15,997	5/1	11	91579814.80	9,515
10/30	24	50100426.07	32,912	5/1	12	92979446.37	10,493
10/31	1	42111715.91	40,413	5/1	13	95829534.77	13,045
10/31	2	37784638.35	48,188	5/1	14	96457641.12	13,658

10/31	3	36075508.47	51,317	5/1	15	93207786.65	10,909
10/31	4	37286246.25	49,059	5/1	16	88166650.19	7,041
10/31	5	45097052.84	35,260	5/1	17	84431601.04	4,632
10/31	6	64872236.35	9,723	5/1	18	79542351.67	2,060
10/31	7	84083928.43	41	5/1	19	73228577.55	256
10/31	8	101206650.43	3,853	5/1	20	82798291.98	3,525
10/31	9	100999724.69	3,671	5/1	21	81235294.06	2,902
10/31	10	105765229.81	6,492	5/1	22	68471687.98	-138
10/31	11	107389650.69	7,760	5/1	23	50222392.50	7,049
10/31	12	104829962.20	6,127	5/1	24	39957291.55	17,306
10/31	13	100817556.11	3,705	5/2	1	34118148.96	15,591
10/31	14	98965952.21	2,563	5/2	2	29430540.92	19,915
10/31	15	97351818.66	1,990	5/2	3	27799808.76	21,331
10/31	16	94137083.26	1,069	5/2	4	26889736.58	22,182
10/31	17	92389177.73	658	5/2	5	27934593.69	21,351
10/31	18	94909553.18	1,328	5/2	6	32529684.00	16,965
10/31	19	101858819.37	4,226	5/2	7	34527911.91	15,153
10/31	20	95699138.13	1,532	5/2	8	44329288.88	7,853
10/31	21	87065872.44	-48	5/2	9	58209207.58	1,468
10/31	22	74823937.18	2,920	5/2	10	64737034.48	312
10/31	23	57180249.57	17,908	5/2	11	67359898.68	-35
10/31	24	45401681.57	34,760	5/2	12	67787278.83	106
11/1	1	37407470.04	27,797	5/2	13	66125490.50	218
11/1	2	33446445.73	33,312	5/2	14	63086953.36	578
11/1	3	30723139.80	37,070	5/2	15	63382531.72	351
11/1	4	29857344.35	38,436	5/2	16	62732489.57	383
11/1	5	33133940.71	33,717	5/2	17	62299498.26	528
11/1	6	38007887.58	26,899	5/2	18	61128586.70	949
11/1	7	46695885.34	16,036	5/2	19	57174830.89	1,896
11/1	8	57347326.23	6,426	5/2	20	61332380.56	799
11/1	9	66069752.82	1,532	5/2	21	64705042.72	258
11/1	10	71593701.98	197	5/2	22	54930428.03	2,649
11/1	11	71203719.99	315	5/2	23	40328323.98	10,491
11/1	12	67147140.53	1,246	5/2	24	33974147.32	15,670
11/1	13	63180063.86	2,815	5/3	1	30551866.03	15,676
11/1	14	57928663.83	6,019	5/3	2	26746894.97	19,097
11/1	15	54911127.32	8,117	5/3	3	25582427.80	20,066
11/1	16	53961656.83	8,958	5/3	4	24931725.83	20,746
11/1	17	56721338.91	6,719	5/3	5	25165421.01	20,387
11/1	18	63124185.70	2,962	5/3	6	27540396.64	18,270
11/1	19	72034693.93	335	5/3	7	31669619.54	14,743
11/1	20	70465291.75	296	5/3	8	35890713.98	11,435
11/1	21	62168947.25	3,373	5/3	9	45569581.31	5,260
11/1	22	55415947.98	7,875	5/3	10	51025217.58	2,642
11/1	23	46438803.00	16,376	5/3	11	54389063.55	1,584
11/1	24	39905962.13	24,307	5/3	12	55902062.11	1,177

11/2	1	34681663.33	20,600	5/3	13	56929932.00	1,011
11/2	2	31415154.20	23,454	5/3	14	56311520.97	1,224
11/2	3	29513932.17	25,003	5/3	15	55301949.78	1,318
11/2	4	28137001.99	26,189	5/3	16	56093160.22	1,312
11/2	5	29188730.63	25,375	5/3	17	58440070.41	541
11/2	6	31283443.73	23,688	5/3	18	56965231.51	1,008
11/2	7	37354798.59	18,456	5/3	19	54995384.47	1,605
11/2	8	42161300.94	14,457	5/3	20	59689567.59	390
11/2	9	50491074.60	8,177	5/3	21	61583141.93	370
11/2	10	54704040.35	5,675	5/3	22	55320643.77	1,448
11/2	11	54413111.98	5,921	5/3	23	42158980.24	7,247
11/2	12	54160463.76	6,129	5/3	24	35367252.19	11,684
11/2	13	52396509.93	7,001	5/4	1	31422900.48	21,461
11/2	14	50156287.15	8,435	5/4	2	28402407.23	24,617
11/2	15	47305084.75	10,528	5/4	3	27328138.00	25,715
11/2	16	47597257.03	10,261	5/4	4	28220563.22	24,873
11/2	17	53740225.48	6,400	5/4	5	31552443.12	21,431
11/2	18	74660965.69	-80	5/4	6	46209076.31	9,083
11/2	19	82789803.45	726	5/4	7	63548817.86	1,229
11/2	20	75018786.65	-135	5/4	8	75781483.70	176
11/2	21	67758290.81	764	5/4	9	83390729.20	1,310
11/2	22	60126286.85	3,141	5/4	10	88696247.59	2,725
11/2	23	49473606.59	8,856	5/4	11	93022005.09	4,524
11/2	24	46396832.22	11,191	5/4	12	96896329.18	6,611
11/3	1	39716122.56	17,474	5/4	13	99865454.67	8,022
11/3	2	36882628.53	20,113	5/4	14	98115456.52	6,892
11/3	3	34277832.54	22,331	5/4	15	94274746.56	4,981
11/3	4	36362066.73	20,547	5/4	16	92670164.02	4,321
11/3	5	42382769.95	15,259	5/4	17	88976554.66	2,950
11/3	6	56695483.05	5,231	5/4	18	85509786.25	1,761
11/3	7	81376330.21	338	5/4	19	80422784.43	509
11/3	8	92551563.97	3,506	5/4	20	86345803.49	1,915
11/3	9	94957951.04	4,737	5/4	21	85292300.79	1,878
11/3	10	97588899.23	6,099	5/4	22	70812320.09	161
11/3	11	97126262.30	5,742	5/4	23	55441029.07	3,759
11/3	12	96162651.42	5,333	5/4	24	46946781.25	8,428
11/3	13	93701245.02	3,869	5/5	1	41952516.60	15,422
11/3	14	91008582.86	3,012	5/5	2	37130613.92	20,005
11/3	15	88446246.27	1,847	5/5	3	35455519.96	21,764
11/3	16	86090405.92	1,201	5/5	4	36367543.32	20,777
11/3	17	88116824.60	1,978	5/5	5	42243164.54	15,158
11/3	18	99107589.52	6,804	5/5	6	56210471.04	5,460
11/3	19	105104090.80	10,674	5/5	7	73788718.05	66
11/3	20	101547106.19	8,310	5/5	8	86763572.60	1,037
11/3	21	91123735.04	2,956	5/5	9	91403465.35	2,140
11/3	22	84324992.67	675	5/5	10	97373017.01	4,672

11/3	23	67528743.97	986	5/5	11	100588957.47	5,821
11/3	24	58875359.66	4,157	5/5	12	102517308.74	7,090
11/4	1	46409576.01	27,681	5/5	13	106414667.40	9,378
11/4	2	41975356.71	32,985	5/5	14	105938583.88	8,868
11/4	3	40669314.74	34,717	5/5	15	105221732.33	8,735
11/4	4	41464045.19	33,574	5/5	16	103864015.77	7,693
11/4	5	46190795.56	27,947	5/5	17	101474472.06	6,549
11/4	6	57878721.43	15,573	5/5	18	98852854.50	5,056
11/4	7	79375244.41	2,134	5/5	19	91755393.48	2,272
11/4	8	99849803.29	974	5/5	20	97373017.01	4,672
11/4	9	105540399.64	2,516	5/5	21	102692320.87	7,116
11/4	10	108812481.87	3,982	5/5	22	83358025.80	379
11/4	11	105669072.76	2,459	5/5	23	61237064.17	3,005
11/4	12	101706158.03	1,368	5/5	24	50207258.38	9,100
11/4	13	100129635.53	975	5/6	1	41582258.50	17,654
11/4	14	100455554.90	1,043	5/6	2	35803988.13	23,279
11/4	15	98934854.46	787	5/6	3	34213894.68	25,126
11/4	16	99057677.91	713	5/6	4	34771978.78	24,475
11/4	17	96831912.63	276	5/6	5	41664749.39	17,391
11/4	18	108904370.33	3,803	5/6	6	55365104.37	6,936
11/4	19	122899579.92	12,800	5/6	7	74616762.20	174
11/4	20	115733831.19	7,708	5/6	8	85420525.57	342
11/4	21	108228004.65	3,798	5/6	9	86829437.75	546
11/4	22	102494209.99	1,457	5/6	10	94957951.04	2,915
11/4	23	90030508.62	15	5/6	11	98437178.40	4,248
11/4	24	73795663.30	4,210	5/6	12	101148353.66	5,354
11/5	1	57254342.00	17,092	5/6	13	104378497.41	6,736
11/5	2	52913973.41	21,389	5/6	14	109638604.24	9,900
11/5	3	49467747.87	25,259	5/6	15	107472705.92	8,493
11/5	4	48401741.76	26,487	5/6	16	103165596.56	6,430
11/5	5	51800559.22	22,757	5/6	17	98183152.50	4,055
11/5	6	64831100.84	10,483	5/6	18	94813330.68	2,786
11/5	7	87977322.27	358	5/6	19	89145044.72	998
11/5	8	100515732.96	809	5/6	20	93408751.21	2,383
11/5	9	106221566.81	2,385	5/6	21	96851445.54	3,562
11/5	10	107352688.91	2,816	5/6	22	80107806.07	148
11/5	11	107369178.42	3,078	5/6	23	59526899.60	4,731
11/5	12	103546786.58	1,465	5/6	24	48531631.36	11,563
11/5	13	101688659.02	1,233	5/7	1	43003631.16	8,851
11/5	14	100632367.89	783	5/7	2	38183982.03	12,593
11/5	15	98946649.33	543	5/7	3	35929479.66	14,274
11/5	16	97287713.88	338	5/7	4	36660227.17	13,652
11/5	17	98019034.52	515	5/7	5	39810125.81	11,269
11/5	18	112240909.93	5,147	5/7	6	52020259.56	3,846
11/5	19	120832124.33	10,206	5/7	7	66829719.47	43
11/5	20	119095281.02	9,085	5/7	8	77796473.84	837

11/5	21	108099380.80	3,075	5/7	9	81090717.30	1,602
11/5	22	98559556.77	555	5/7	10	85936266.13	3,105
11/5	23	87184752.90	505	5/7	11	87690930.43	3,806
11/5	24	70768927.05	6,565	5/7	12	90289246.15	4,829
11/6	1	52231829.38	19,948	5/7	13	93361437.39	6,553
11/6	2	48006566.87	24,600	5/7	14	94144325.08	6,905
11/6	3	45096139.35	27,806	5/7	15	90295269.66	4,787
11/6	4	44908547.31	28,056	5/7	16	87561242.29	3,622
11/6	5	49582083.19	22,894	5/7	17	85603944.50	2,936
11/6	6	59476340.43	13,326	5/7	18	81454604.39	1,763
11/6	7	85672074.66	167	5/7	19	80181513.29	1,249
11/6	8	98376831.14	701	5/7	20	84989643.96	2,627
11/6	9	102343060.80	2,001	5/7	21	87610841.51	3,639
11/6	10	102814626.59	1,951	5/7	22	73232031.11	21
11/6	11	102873613.18	1,945	5/7	23	57051385.15	1,883
11/6	12	100763223.31	1,511	5/7	24	46511617.10	6,662
11/6	13	99726812.52	1,294	5/8	1	40363173.47	28,279
11/6	14	97762597.09	756	5/8	2	35339908.56	34,355
11/6	15	95462238.22	264	5/8	3	33290785.71	37,003
11/6	16	93467403.15	205	5/8	4	33815979.27	36,425
11/6	17	96454482.70	435	5/8	5	38715244.45	30,166
11/6	18	114778772.10	7,786	5/8	6	51298987.47	16,747
11/6	19	120785078.15	12,008	5/8	7	68246147.26	4,820
11/6	20	115386095.36	8,105	5/8	8	82270840.09	425
11/6	21	110375815.53	5,228	5/8	9	89008843.23	138
11/6	22	100025848.16	1,183	5/8	10	95600770.74	584
11/6	23	83851451.02	737	5/8	11	94582683.28	288
11/6	24	66796986.39	7,621	5/8	12	95263318.42	354
11/7	1	58713556.54	38,778	5/8	13	97447237.42	881
11/7	2	52730740.64	47,969	5/8	14	97003053.92	930
11/7	3	48007522.44	55,824	5/8	15	93778598.04	368
11/7	4	48017397.44	55,766	5/8	16	88140994.88	-11
11/7	5	52827247.62	47,838	5/8	17	85777971.22	190
11/7	6	61700594.23	34,558	5/8	18	80868403.73	667
11/7	7	97435041.27	2,806	5/8	19	74739790.91	2,178
11/7	8	115162863.10	91	5/8	20	79698240.96	998
11/7	9	111458520.80	-153	5/8	21	81683680.76	675
11/7	10	114593925.95	219	5/8	22	66434464.17	5,629
11/7	11	111422307.95	43	5/8	23	50475551.99	17,467
11/7	12	103218647.99	1,105	5/8	24	41202088.68	27,179
11/7	13	98852318.71	2,128	5/9	1	35123741.93	14,157
11/7	14	97458904.32	2,674	5/9	2	32196851.95	16,609
11/7	15	92498944.69	4,988	5/9	3	31265195.11	17,530
11/7	16	88758207.58	7,210	5/9	4	31694651.37	17,087
11/7	17	89612447.42	6,645	5/9	5	33484766.65	15,448
11/7	18	103126925.61	1,027	5/9	6	36252139.18	13,264

11/7	19	111790086.43	-51	5/9	7	42217315.81	8,897
11/7	20	101526895.95	1,463	5/9	8	54550578.75	2,498
11/7	21	92705970.00	4,868	5/9	9	60279249.07	840
11/7	22	82426329.44	11,535	5/9	10	62363694.07	502
11/7	23	69565005.59	24,405	5/9	11	62156670.25	651
11/7	24	58573390.32	38,954	5/9	12	60379500.90	916
11/8	1	44506087.29	26,810	5/9	13	59068171.79	1,257
11/8	2	40278055.27	31,755	5/9	14	56369424.64	1,765
11/8	3	37687147.27	34,747	5/9	15	54680249.22	2,533
11/8	4	34201666.37	38,869	5/9	16	54570137.45	2,336
11/8	5	36336517.16	36,383	5/9	17	54536611.34	2,336
11/8	6	37725961.27	34,796	5/9	18	53427881.34	2,744
11/8	7	41189820.96	30,643	5/9	19	51517490.10	3,595
11/8	8	53760611.26	17,053	5/9	20	53953687.78	2,758
11/8	9	63712684.20	8,906	5/9	21	57020733.99	1,530
11/8	10	70801786.04	4,465	5/9	22	51554698.72	3,549
11/8	11	73211743.09	3,461	5/9	23	41094621.64	9,432
11/8	12	69621601.86	5,128	5/9	24	34042735.90	15,063
11/8	13	66265183.68	7,104	5/10	1	31204888.87	23,284
11/8	14	60254486.21	11,324	5/10	2	29513258.98	25,033
11/8	15	57894393.44	13,448	5/10	3	28175396.30	26,574
11/8	16	56169445.67	14,915	5/10	4	27809697.11	26,952
11/8	17	59179188.86	12,385	5/10	5	28291240.88	26,388
11/8	18	72775454.35	3,689	5/10	6	30045805.84	24,552
11/8	19	80570202.37	1,103	5/10	7	34013151.07	20,533
11/8	20	77255387.34	1,957	5/10	8	43286193.44	12,179
11/8	21	70005747.97	4,869	5/10	9	47950212.65	8,781
11/8	22	61581617.63	10,273	5/10	10	51097475.66	6,890
11/8	23	51281282.28	19,477	5/10	11	51450496.35	6,540
11/8	24	41311473.13	30,453	5/10	12	50958020.44	6,768
11/9	1	35881414.69	38,820	5/10	13	49917057.50	7,535
11/9	2	30206590.39	45,666	5/10	14	47946711.99	8,810
11/9	3	28191025.11	47,829	5/10	15	46863146.06	9,630
11/9	4	26997753.76	49,198	5/10	16	46581708.15	9,830
11/9	5	26897291.83	49,268	5/10	17	48302809.28	8,534
11/9	6	26710748.00	49,443	5/10	18	49234781.22	7,946
11/9	7	29579958.42	46,324	5/10	19	50149712.93	7,369
11/9	8	35054861.59	39,875	5/10	20	59018632.65	2,889
11/9	9	42497027.19	30,809	5/10	21	72482780.38	57
11/9	10	50198376.84	21,984	5/10	22	56237595.29	4,209
11/9	11	52313784.15	19,903	5/10	23	43857413.89	11,680
11/9	12	53132949.62	19,066	5/10	24	37373413.70	17,178
11/9	13	52417206.08	19,787	5/11	1	35983284.63	42,622
11/9	14	50181932.53	22,101	5/11	2	33246512.18	46,689
11/9	15	48546079.02	23,941	5/11	3	33545506.08	46,225
11/9	16	48520717.41	23,928	5/11	4	33713380.70	46,008

11/9	17	53154883.07	19,119	5/11	5	39909587.11	37,148
11/9	18	72335477.97	4,597	5/11	6	58066622.00	16,479
11/9	19	86697743.43	304	5/11	7	83461381.10	1,570
11/9	20	76405440.08	2,735	5/11	8	99720342.35	31
11/9	21	71131403.14	5,037	5/11	9	101668428.49	274
11/9	22	60899949.15	12,087	5/11	10	105484245.91	944
11/9	23	48833103.15	23,642	5/11	11	103895110.73	802
11/9	24	41602080.06	31,867	5/11	12	104615494.97	951
11/10	1	33467813.11	50,520	5/11	13	101518703.43	501
11/10	2	30600434.94	54,169	5/11	14	101041085.45	365
11/10	3	28583996.93	56,606	5/11	15	96495021.32	38
11/10	4	28381675.98	56,879	5/11	16	90500241.35	170
11/10	5	32028026.57	52,344	5/11	17	86818213.74	843
11/10	6	39566825.88	42,210	5/11	18	83842884.89	1,458
11/10	7	69152773.01	9,724	5/11	19	81537130.47	2,118
11/10	8	91362453.60	408	5/11	20	92821640.15	40
11/10	9	95135561.88	20	5/11	21	101997944.79	310
11/10	10	99976144.17	182	5/11	22	79595054.34	2,786
11/10	11	100815925.82	451	5/11	23	60449786.16	14,540
11/10	12	99958319.90	289	5/11	24	48041931.98	26,978
11/10	13	98419018.01	37	5/12	1	40731535.34	31,508
11/10	14	97733897.71	-50	5/12	2	37149678.19	36,075
11/10	15	95618555.19	-63	5/12	3	36118829.36	37,498
11/10	16	91112114.06	423	5/12	4	37200550.71	36,022
11/10	17	93694543.26	9	5/12	5	41429086.76	30,553
11/10	18	111575394.22	3,090	5/12	6	57352756.68	14,091
11/10	19	121046475.03	8,300	5/12	7	78967013.98	1,960
11/10	20	109255207.68	2,567	5/12	8	94364357.22	34
11/10	21	100589500.02	477	5/12	9	100024227.10	701
11/10	22	88439322.77	694	5/12	10	101934390.24	1,034
11/10	23	71104773.42	8,425	5/12	11	101704517.40	1,054
11/10	24	51438444.14	26,955	5/12	12	102289784.66	1,289
11/11	1	44571875.75	33,574	5/12	13	99926997.93	617
11/11	2	38247227.50	41,848	5/12	14	98611961.76	566
11/11	3	35381313.25	45,627	5/12	15	97475876.17	192
11/11	4	33142233.77	48,492	5/12	16	94773302.03	97
11/11	5	36025748.65	44,773	5/12	17	90447961.89	-95
11/11	6	47512788.89	29,865	5/12	18	86927081.92	171
11/11	7	72082485.59	6,888	5/12	19	82588620.47	1,001
11/11	8	91997845.69	67	5/12	20	88386914.70	124
11/11	9	98755375.80	105	5/12	21	91255176.92	-116
11/11	10	104148005.83	1,177	5/12	22	78330767.24	2,152
11/11	11	103995659.93	1,393	5/12	23	58064065.07	13,376
11/11	12	102101556.00	724	5/12	24	45334707.69	25,917
11/11	13	101080825.02	758	5/13	1	42995098.37	19,939
11/11	14	100205362.69	321	5/13	2	37893592.48	25,423

11/11	15	96406589.24	-14	5/13	3	36019014.14	27,561
11/11	16	93390235.05	-64	5/13	4	37375541.57	25,886
11/11	17	94695878.53	160	5/13	5	43913548.30	19,031
11/11	18	113950432.62	5,069	5/13	6	56432380.90	8,715
11/11	19	122303355.75	10,028	5/13	7	77670742.70	360
11/11	20	119269991.32	8,017	5/13	8	91163153.29	825
11/11	21	107660603.90	2,451	5/13	9	97160124.66	2,269
11/11	22	94970443.69	75	5/13	10	100237288.63	3,109
11/11	23	79871811.26	2,732	5/13	11	101761950.58	3,676
11/11	24	60335931.06	16,021	5/13	12	103402822.37	4,413
11/12	1	49745609.21	39,393	5/13	13	105322082.55	5,097
11/12	2	44445792.41	47,181	5/13	14	105182507.96	5,215
11/12	3	42287046.33	50,463	5/13	15	101232810.12	3,359
11/12	4	41193529.53	52,142	5/13	16	97754092.94	2,380
11/12	5	42618229.81	49,904	5/13	17	95158496.82	1,401
11/12	6	53793447.52	33,700	5/13	18	91570687.27	881
11/12	7	79875487.65	7,559	5/13	19	86980819.89	13
11/12	8	99297203.74	341	5/13	20	92890784.70	1,174
11/12	9	101550930.08	-11	5/13	21	100781150.80	3,298
11/12	10	102746298.76	19	5/13	22	82784144.78	7
11/12	11	105027954.44	27	5/13	23	62427552.67	5,333
11/12	12	100020985.03	140	5/13	24	50887233.09	12,741
11/12	13	98830888.97	298	5/14	1	43183986.94	9,203
11/12	14	97540600.84	532	5/14	2	38672701.45	12,511
11/12	15	94096226.18	1,144	5/14	3	36385802.90	14,315
11/12	16	89761308.56	2,541	5/14	4	37396825.04	13,393
11/12	17	89447808.69	2,459	5/14	5	41170996.54	10,476
11/12	18	108704584.28	409	5/14	6	55583191.69	2,541
11/12	19	122654080.70	4,922	5/14	7	76970424.24	415
11/12	20	114742382.19	1,649	5/14	8	90012977.95	4,700
11/12	21	106466655.69	256	5/14	9	97733897.71	8,550
11/12	22	92835978.19	1,330	5/14	10	104660707.84	13,155
11/12	23	77053684.07	9,295	5/14	11	106942744.57	15,072
11/12	24	60071618.32	25,816	5/14	12	111654333.65	19,044
11/13	1	51754480.27	63,320	5/14	13	112948787.91	20,166
11/13	2	47539667.77	71,293	5/14	14	111761404.61	19,209
11/13	3	44938609.26	76,320	5/14	15	110219859.99	17,664
11/13	4	44716675.22	76,785	5/14	16	105881714.73	14,162
11/13	5	48622542.55	69,227	5/14	17	103544570.66	12,370
11/13	6	57329951.27	53,372	5/14	18	98467094.87	9,094
11/13	7	87449350.08	13,844	5/14	19	93397435.47	6,087
11/13	8	112104176.55	882	5/14	20	96297708.56	7,766
11/13	9	115187385.47	391	5/14	21	102259036.40	11,586
11/13	10	114847398.61	338	5/14	22	85257617.18	2,730
11/13	11	115567663.37	243	5/14	23	62605913.07	621
11/13	12	110504061.40	1,059	5/14	24	52938233.98	3,605

11/13	13	107772315.81	1,943	5/15	1	46575786.41	9,211
11/13	14	108595043.82	1,587	5/15	2	40888805.46	13,566
11/13	15	103894000.08	3,323	5/15	3	38338173.37	15,754
11/13	16	98339461.26	6,050	5/15	4	37611743.07	16,405
11/13	17	98688466.25	5,719	5/15	5	43128525.70	11,901
11/13	18	118958094.25	45	5/15	6	57342258.14	3,265
11/13	19	134441398.76	2,737	5/15	7	77573053.02	197
11/13	20	124412886.66	422	5/15	8	89327212.11	2,737
11/13	21	116209888.26	275	5/15	9	94621096.43	4,836
11/13	22	101217004.73	4,441	5/15	10	99516148.13	7,480
11/13	23	85520405.50	15,515	5/15	11	98872680.06	7,118
11/13	24	61669308.72	46,152	5/15	12	98467629.16	6,735
11/14	1	49158273.53	46,497	5/15	13	100382400.33	7,955
11/14	2	45534309.87	52,223	5/15	14	100924653.43	8,272
11/14	3	42203669.95	57,591	5/15	15	98296765.33	6,720
11/14	4	41452581.07	58,832	5/15	16	93991297.57	4,611
11/14	5	45285516.57	52,642	5/15	17	86974956.41	1,867
11/14	6	54144484.26	38,905	5/15	18	80665040.67	657
11/14	7	81442953.02	8,971	5/15	19	75069313.92	150
11/14	8	112650653.25	424	5/15	20	76116080.53	-33
11/14	9	111491236.47	206	5/15	21	79016705.93	389
11/14	10	112934634.32	523	5/15	22	68651187.87	389
11/14	11	108377346.32	-53	5/15	23	51647301.32	6,110
11/14	12	105876648.25	-23	5/15	24	42768983.70	12,003
11/14	13	101517611.13	578	5/16	1	36754222.08	12,687
11/14	14	98429700.30	935	5/16	2	32311913.18	16,402
11/14	15	96986669.88	1,352	5/16	3	29132448.04	19,228
11/14	16	94180540.23	2,419	5/16	4	28263389.56	20,148
11/14	17	94801372.80	2,214	5/16	5	29687083.44	18,760
11/14	18	109513966.38	64	5/16	6	31974508.17	16,730
11/14	19	114821138.02	571	5/16	7	36892640.92	12,518
11/14	20	104100171.94	11	5/16	8	49811324.47	4,435
11/14	21	99404749.73	954	5/16	9	57572819.72	1,541
11/14	22	88201688.24	4,833	5/16	10	61277304.29	486
11/14	23	73808686.91	15,388	5/16	11	63325747.05	381
11/14	24	53673233.52	39,690	5/16	12	62053918.87	546
11/15	1	44002334.11	30,659	5/16	13	61796047.41	510
11/15	2	40111285.17	35,522	5/16	14	59792843.09	908
11/15	3	36366760.91	40,145	5/16	15	58427961.26	1,194
11/15	4	34401956.88	42,579	5/16	16	57754183.00	1,495
11/15	5	35078996.75	41,762	5/16	17	58146292.65	1,176
11/15	6	36828911.20	39,623	5/16	18	57535798.00	1,556
11/15	7	41997337.93	33,134	5/16	19	53661843.97	2,652
11/15	8	51393601.00	22,291	5/16	20	55207491.28	2,293
11/15	9	59962388.66	13,918	5/16	21	60836464.20	756
11/15	10	69867096.40	6,486	5/16	22	54893936.25	2,376

11/15	11	71003814.84	5,799	5/16	23	44507595.41	7,240
11/15	12	67455879.40	8,145	5/16	24	36498113.77	12,838
11/15	13	64687274.44	10,115	5/17	1	32787947.49	23,457
11/15	14	61579331.24	12,355	5/17	2	29644064.90	26,755
11/15	15	58480447.29	15,234	5/17	3	27768870.28	28,867
11/15	16	56741095.64	16,826	5/17	4	26669212.06	30,078
11/15	17	59373087.74	14,394	5/17	5	27388480.44	29,252
11/15	18	83592366.90	860	5/17	6	28653131.81	27,945
11/15	19	92630788.95	-125	5/17	7	32440479.55	23,707
11/15	20	83207898.41	979	5/17	8	41201803.36	15,201
11/15	21	73639509.00	4,493	5/17	9	47687221.89	10,145
11/15	22	61932156.17	12,238	5/17	10	50369627.75	8,324
11/15	23	51308342.93	22,293	5/17	11	53659428.23	6,203
11/15	24	43024821.29	31,836	5/17	12	56022644.81	5,094
11/16	1	36385281.11	38,353	5/17	13	55473187.21	5,241
11/16	2	31201618.83	44,561	5/17	14	53532194.93	6,451
11/16	3	29536378.16	46,422	5/17	15	53367357.18	6,491
11/16	4	28314755.80	47,801	5/17	16	53651491.34	6,266
11/16	5	28980897.51	47,026	5/17	17	55609389.50	5,210
11/16	6	29429869.10	46,654	5/17	18	55677403.66	5,196
11/16	7	31376912.45	44,435	5/17	19	55117722.63	5,447
11/16	8	38536028.68	35,760	5/17	20	58715397.60	3,738
11/16	9	45847839.10	26,973	5/17	21	66620991.76	1,103
11/16	10	54496818.35	17,661	5/17	22	58151411.80	4,085
11/16	11	55740511.94	16,609	5/17	23	45551483.07	11,615
11/16	12	55583899.62	16,632	5/17	24	36265932.09	19,812
11/16	13	54910425.56	17,299	5/18	1	31614175.21	14,711
11/16	14	53144943.67	19,017	5/18	2	28673126.50	17,037
11/16	15	51471592.61	20,809	5/18	3	28116627.11	17,633
11/16	16	51629509.65	20,704	5/18	4	29114445.24	16,659
11/16	17	58907094.42	13,637	5/18	5	34385421.70	12,483
11/16	18	84623069.91	553	5/18	6	47998922.83	4,075
11/16	19	93532774.69	125	5/18	7	70390159.09	392
11/16	20	85412808.88	308	5/18	8	82073846.55	3,235
11/16	21	78300864.16	2,010	5/18	9	89705339.88	6,907
11/16	22	66036887.46	8,073	5/18	10	93604875.94	8,859
11/16	23	52641848.56	19,676	5/18	11	96378703.14	10,952
11/16	24	47157754.38	25,468	5/18	12	97629249.54	11,555
11/17	1	41152463.40	59,244	5/18	13	98092010.64	12,003
11/17	2	37834793.60	64,700	5/18	14	97193995.51	11,334
11/17	3	35313856.84	68,742	5/18	15	95310280.40	9,995
11/17	4	34806585.59	69,560	5/18	16	90846638.34	7,261
11/17	5	36582117.70	66,669	5/18	17	87936930.84	5,842
11/17	6	44490706.50	53,677	5/18	18	84555062.71	4,112
11/17	7	74368959.70	14,829	5/18	19	81449943.70	3,126
11/17	8	101257884.38	534	5/18	20	82328125.77	3,181

11/17	9	107326536.88	66	5/18	21	85353021.56	4,610
11/17	10	112752520.84	539	5/18	22	73847767.66	935
11/17	11	113286493.30	602	5/18	23	57555395.60	749
11/17	12	109304159.36	-59	5/18	24	47791912.25	4,038
11/17	13	107011368.40	-75	5/19	1	41793751.06	11,567
11/17	14	105329934.07	-85	5/19	2	37533245.91	14,943
11/17	15	101757026.82	417	5/19	3	36007619.35	16,296
11/17	16	97586245.03	1,367	5/19	4	36685415.51	15,693
11/17	17	101055782.34	481	5/19	5	41137641.21	12,049
11/17	18	125029816.98	3,878	5/19	6	54606823.61	3,674
11/17	19	129371812.61	6,168	5/19	7	71131825.89	-63
11/17	20	122670978.75	3,061	5/19	8	81686482.93	1,204
11/17	21	112560029.19	270	5/19	9	88316248.67	3,166
11/17	22	100016662.39	712	5/19	10	93711556.10	5,124
11/17	23	84208933.40	7,148	5/19	11	96227272.63	6,645
11/17	24	64730714.22	24,907	5/19	12	97832244.88	7,384
11/18	1	51185149.85	46,599	5/19	13	98888756.95	8,070
11/18	2	43048963.64	59,992	5/19	14	97314729.54	7,001
11/18	3	39601754.98	65,810	5/19	15	94673023.93	5,750
11/18	4	38433074.12	67,872	5/19	16	94125186.84	5,319
11/18	5	40825845.04	63,762	5/19	17	93868385.13	5,557
11/18	6	51133132.33	46,763	5/19	18	87448369.03	2,724
11/18	7	75255377.25	15,937	5/19	19	84155956.95	1,713
11/18	8	102145983.99	688	5/19	20	85004061.52	2,057
11/18	9	104618285.48	391	5/19	21	91174778.96	4,230
11/18	10	102917731.22	538	5/19	22	78051991.39	579
11/18	11	104217560.04	500	5/19	23	61459000.98	1,316
11/18	12	101531265.48	878	5/19	24	48895366.31	6,609
11/18	13	99911879.52	1,199	5/20	1	42521831.59	23,235
11/18	14	97818418.82	1,806	5/20	2	37249615.92	29,295
11/18	15	97086590.66	1,984	5/20	3	35757589.97	31,106
11/18	16	92957915.97	3,657	5/20	4	36271658.56	30,328
11/18	17	94710424.44	2,935	5/20	5	40930533.92	25,035
11/18	18	119181080.58	1,371	5/20	6	55592395.31	11,107
11/18	19	127730808.29	4,363	5/20	7	70079748.53	2,966
11/18	20	121233170.32	1,835	5/20	8	78851760.66	578
11/18	21	111191212.75	68	5/20	9	86434786.31	-66
11/18	22	100099896.86	1,013	5/20	10	90741813.17	160
11/18	23	83325331.64	9,081	5/20	11	93868901.33	806
11/18	24	64265818.27	28,050	5/20	12	95711177.44	1,003
11/19	1	54039312.76	29,089	5/20	13	97522559.71	1,284
11/19	2	50937408.36	33,135	5/20	14	98007851.86	1,360
11/19	3	46393724.36	39,368	5/20	15	96488702.80	1,235
11/19	4	44123014.36	42,486	5/20	16	94609675.13	832
11/19	5	47183230.19	38,228	5/20	17	89714832.80	222
11/19	6	62773434.75	19,219	5/20	18	86036579.81	-3

11/19	7	88931861.33	1,652	5/20	19	80627095.71	411
11/19	8	105669634.90	256	5/20	20	81583781.98	120
11/19	9	106244702.97	608	5/20	21	88791430.96	13
11/19	10	107394769.19	711	5/20	22	76267995.74	1,220
11/19	11	104727157.19	401	5/20	23	59388307.54	8,509
11/19	12	100428998.07	148	5/20	24	48363944.52	17,341
11/19	13	98317577.92	-48	5/21	1	43621202.61	22,007
11/19	14	96698425.77	221	5/21	2	38989853.58	27,165
11/19	15	96761723.17	154	5/21	3	36760529.61	29,805
11/19	16	94734324.77	302	5/21	4	38132144.57	28,265
11/19	17	96623035.31	54	5/21	5	42556867.30	23,168
11/19	18	111886707.02	1,889	5/21	6	54151778.83	12,244
11/19	19	120514200.56	5,296	5/21	7	75762901.52	1,166
11/19	20	118641285.66	4,553	5/21	8	88884702.57	57
11/19	21	108620844.63	804	5/21	9	96333992.28	1,178
11/19	22	99959940.19	41	5/21	10	105262088.38	3,818
11/19	23	86140374.35	2,564	5/21	11	108890583.50	5,418
11/19	24	68026873.13	14,166	5/21	12	110292890.03	5,983
11/20	1	58099504.02	21,804	5/21	13	113455618.34	7,645
11/20	2	50387435.57	30,943	5/21	14	112143482.44	7,036
11/20	3	46422322.32	36,095	5/21	15	109395193.86	5,744
11/20	4	45103143.13	38,023	5/21	16	109127431.85	5,485
11/20	5	47335031.97	35,021	5/21	17	106270100.50	4,260
11/20	6	59590886.39	20,314	5/21	18	98609822.38	1,764
11/20	7	85972117.38	2,016	5/21	19	91597564.64	275
11/20	8	107570041.74	1,197	5/21	20	92160755.37	319
11/20	9	105786044.01	966	5/21	21	96555062.05	1,159
11/20	10	106423142.50	1,001	5/21	22	82487925.93	249
11/20	11	108162821.47	1,215	5/21	23	65798765.71	5,018
11/20	12	103965654.50	486	5/21	24	52654103.12	13,582
11/20	13	103181067.87	422	5/22	1	44181793.54	10,845
11/20	14	101948632.74	74	5/22	2	36975977.74	16,777
11/20	15	100826794.78	154	5/22	3	34576676.59	19,050
11/20	16	97110921.21	143	5/22	4	35058925.62	18,572
11/20	17	98536034.52	-113	5/22	5	39710565.25	14,371
11/20	18	116286958.90	4,397	5/22	6	53454720.34	4,989
11/20	19	121649482.15	7,016	5/22	7	72683956.18	115
11/20	20	117079661.56	4,727	5/22	8	85380500.70	1,430
11/20	21	106687243.96	1,173	5/22	9	92160245.95	3,811
11/20	22	97788112.75	-107	5/22	10	97153774.82	6,058
11/20	23	83124158.08	2,913	5/22	11	98025957.58	6,730
11/20	24	67101728.35	13,079	5/22	12	100231335.78	7,920
11/21	1	56069647.99	15,978	5/22	13	101405149.58	8,376
11/21	2	48553785.70	23,602	5/22	14	99471470.35	7,520
11/21	3	44298318.56	28,398	5/22	15	96451324.37	5,819
11/21	4	43450797.42	29,462	5/22	16	95813293.68	5,560

11/21	5	46258367.33	26,108	5/22	17	90702526.20	3,154
11/21	6	58622660.13	13,575	5/22	18	84361792.67	1,246
11/21	7	83027246.55	648	5/22	19	78814886.98	203
11/21	8	100369940.79	1,232	5/22	20	78598902.29	425
11/21	9	104822137.53	2,714	5/22	21	83400210.18	1,090
11/21	10	100477237.70	1,268	5/22	22	72179846.28	58
11/21	11	100026928.88	1,259	5/22	23	54681648.49	4,555
11/21	12	94855451.88	438	5/22	24	43390350.90	11,571
11/21	13	92047714.74	48	5/23	1	37239268.57	22,830
11/21	14	91269846.21	122	5/23	2	32270734.68	28,335
11/21	15	88162702.87	-96	5/23	3	30254763.56	30,711
11/21	16	84385216.87	538	5/23	4	29730372.49	31,345
11/21	17	85846201.06	227	5/23	5	31743811.83	28,968
11/21	18	101655307.54	1,732	5/23	6	32936083.58	27,649
11/21	19	103797961.22	2,474	5/23	7	40487289.68	19,544
11/21	20	97664831.48	746	5/23	8	52899284.28	9,133
11/21	21	91494650.02	-11	5/23	9	63671689.13	3,390
11/21	22	87442973.37	145	5/23	10	70390159.09	1,264
11/21	23	74601448.56	3,337	5/23	11	76349818.16	321
11/21	24	59104420.86	13,374	5/23	12	78937847.53	15
11/22	1	45313926.63	29,776	5/23	13	80600726.91	-75
11/22	2	37859754.95	39,238	5/23	14	81649126.37	85
11/22	3	34349114.50	43,585	5/23	15	82512856.05	-18
11/22	4	32862804.01	45,490	5/23	16	84439732.11	245
11/22	5	33233556.13	44,995	5/23	17	87613788.63	496
11/22	6	35484977.77	42,176	5/23	18	87481729.34	706
11/22	7	41119688.70	34,971	5/23	19	85387733.11	430
11/22	8	53088759.83	21,117	5/23	20	82547202.66	71
11/22	9	60814557.85	13,540	5/23	21	87979292.93	749
11/22	10	67027170.62	8,731	5/23	22	77103402.27	-11
11/22	11	69257220.92	7,142	5/23	23	58909678.02	5,452
11/22	12	66762649.27	9,046	5/23	24	47563709.93	13,188
11/22	13	63415608.18	11,416	5/24	1	40613939.51	22,476
11/22	14	57170496.21	17,004	5/24	2	36071619.20	27,452
11/22	15	54327060.88	19,652	5/24	3	32664666.52	31,495
11/22	16	53169966.09	20,957	5/24	4	31834713.80	32,448
11/22	17	57479209.71	16,596	5/24	5	32455134.47	31,695
11/22	18	84098235.20	986	5/24	6	33299841.33	30,709
11/22	19	84682009.38	800	5/24	7	39904010.32	23,093
11/22	20	78839923.31	2,485	5/24	8	49576215.22	13,755
11/22	21	71498608.57	5,930	5/24	9	62667634.71	5,133
11/22	22	64033490.22	10,971	5/24	10	78066003.60	377
11/22	23	54751294.84	19,395	5/24	11	90789679.24	567
11/22	24	46143104.22	28,788	5/24	12	103309876.02	4,273
11/23	1	39746975.80	32,062	5/24	13	109595315.64	7,225
11/23	2	34527911.91	38,126	5/24	14	114144632.91	10,018

11/23	3	31305679.98	41,831	5/24	15	118377539.58	12,720
11/23	4	30332504.91	42,930	5/24	16	124674845.25	17,790
11/23	5	30440437.04	42,855	5/24	17	131956339.80	23,878
11/23	6	31223345.83	42,007	5/24	18	131109998.04	23,032
11/23	7	34302331.50	38,391	5/24	19	126627235.60	19,132
11/23	8	42460860.64	28,843	5/24	20	123565201.59	16,721
11/23	9	50578990.72	19,963	5/24	21	125564274.65	18,517
11/23	10	53482946.17	17,095	5/24	22	114503965.66	10,229
11/23	11	54520901.08	16,133	5/24	23	90234545.81	492
11/23	12	53366669.69	17,287	5/24	24	72282433.47	1,339
11/23	13	52511940.56	18,112	5/25	1	58276199.94	37,815
11/23	14	50660725.76	19,783	5/25	2	50777039.09	48,821
11/23	15	49202676.46	21,387	5/25	3	47944802.61	53,365
11/23	16	48913120.16	21,680	5/25	4	47749064.40	53,706
11/23	17	52802341.43	17,718	5/25	5	54954297.49	42,454
11/23	18	77176453.74	1,838	5/25	6	70286160.01	23,217
11/23	19	85481312.04	294	5/25	7	94920480.18	4,839
11/23	20	81055414.83	806	5/25	8	116515376.07	101
11/23	21	75170002.07	2,586	5/25	9	139399775.46	4,902
11/23	22	65833145.02	7,172	5/25	10	161771619.76	18,333
11/23	23	56260801.14	14,494	5/25	11	182530430.90	37,239
11/23	24	46869094.08	23,923	5/25	12	199406111.42	56,688
11/24	1	40980250.62	46,392	5/25	13	219119784.24	83,395
11/24	2	36429913.96	53,148	5/25	14	228454336.33	97,763
11/24	3	34159016.73	56,416	5/25	15	240496895.90	117,587
11/24	4	34540977.99	55,835	5/25	16	243213117.58	121,839
11/24	5	37694907.77	51,190	5/25	17	246194149.30	127,008
11/24	6	44802080.73	41,039	5/25	18	229686780.33	99,961
11/24	7	69074097.62	12,847	5/25	19	211746684.36	73,094
11/24	8	98456943.91	54	5/25	20	196631804.84	52,942
11/24	9	98997056.99	12	5/25	21	198408029.22	55,570
11/24	10	101323316.56	39	5/25	22	160631798.01	17,452
11/24	11	99487617.28	-34	5/25	23	122801838.91	401
11/24	12	98337859.92	130	5/25	24	99000811.50	3,107
11/24	13	95885607.94	99	5/26	1	82895483.05	5,248
11/24	14	94432253.48	240	5/26	2	73177651.07	11,253
11/24	15	91059075.30	1,140	5/26	3	66641561.03	16,719
11/24	16	88460094.43	1,833	5/26	4	65518617.77	17,746
11/24	17	90439920.82	1,083	5/26	5	71161845.89	12,825
11/24	18	114892170.95	3,126	5/26	6	88857408.37	2,947
11/24	19	121929671.75	6,326	5/26	7	117534810.76	1,717
11/24	20	116956245.33	3,852	5/26	8	142490202.23	13,406
11/24	21	105744418.56	547	5/26	9	160799815.60	28,301
11/24	22	93549251.45	402	5/26	10	184167139.69	54,132
11/24	23	79784992.13	5,497	5/26	11	199829121.16	75,767
11/24	24	62968768.04	18,640	5/26	12	217190037.14	102,368

11/25	1	53080541.39	25,814	5/26	13	231428735.65	126,472
11/25	2	46182741.29	34,509	5/26	14	240486733.59	143,343
11/25	3	42589293.84	39,195	5/26	15	247318399.03	155,927
11/25	4	41508490.22	40,717	5/26	16	247634805.04	156,503
11/25	5	44866060.19	36,233	5/26	17	243486769.22	148,726
11/25	6	56373715.50	22,052	5/26	18	227217881.00	119,601
11/25	7	77277373.51	4,952	5/26	19	203333738.55	80,831
11/25	8	102445824.78	308	5/26	20	193303844.89	66,155
11/25	9	103746359.82	684	5/26	21	193359424.87	66,420
11/25	10	108387651.21	1,721	5/26	22	159003072.85	26,482
11/25	11	110176985.56	2,287	5/26	23	111267039.24	319
11/25	12	104474922.66	796	5/26	24	94124669.63	1,130
11/25	13	104722689.06	1,039	5/27	1	75471767.61	12,531
11/25	14	104452622.10	927	5/27	2	63863553.25	23,161
11/25	15	101571143.77	499	5/27	3	57972434.48	29,856
11/25	16	97706798.31	81	5/27	4	57366877.58	30,537
11/25	17	99093097.19	166	5/27	5	61961241.03	25,069
11/25	18	118229368.07	6,114	5/27	6	79217526.22	9,736
11/25	19	125828613.43	11,015	5/27	7	105058740.10	303
11/25	20	123203184.16	8,986	5/27	8	129455072.43	3,892
11/25	21	114341451.30	3,994	5/27	9	142633169.36	10,593
11/25	22	102619097.82	619	5/27	10	166332310.26	29,184
11/25	23	87050226.10	1,247	5/27	11	187222614.09	52,259
11/25	24	64862741.88	13,760	5/27	12	203499489.63	73,851
11/26	1	50164177.03	59,412	5/27	13	219155900.31	97,388
11/26	2	43331148.42	71,992	5/27	14	228446501.67	112,436
11/26	3	40505888.51	77,257	5/27	15	238563518.46	130,150
11/26	4	40008389.14	78,163	5/27	16	239385958.12	131,538
11/26	5	42898674.43	72,763	5/27	17	234147685.58	122,375
11/26	6	48912151.65	61,701	5/27	18	223579846.67	104,405
11/26	7	71537229.29	26,927	5/27	19	197658743.39	65,470
11/26	8	100020444.69	3,339	5/27	20	189882866.79	55,485
11/26	9	108511364.94	855	5/27	21	188653012.26	53,627
11/26	10	113045538.31	259	5/27	22	158233402.18	21,790
11/26	11	111307884.32	310	5/27	23	117890844.26	611
11/26	12	109404991.97	530	5/27	24	92629255.10	2,790
11/26	13	104159132.25	1,687	5/28	1	72433084.53	23,495
11/26	14	100210232.28	3,392	5/28	2	57801135.34	41,717
11/26	15	97425497.22	4,655	5/28	3	52207464.00	50,216
11/26	16	94799813.15	6,049	5/28	4	50419765.05	53,016
11/26	17	95732117.97	5,310	5/28	5	57828810.04	41,715
11/26	18	119664225.18	41	5/28	6	73784811.55	22,020
11/26	19	126897672.49	1,628	5/28	7	95500385.57	5,706
11/26	20	118208037.50	190	5/28	8	117627693.53	2
11/26	21	109104995.86	644	5/28	9	135036029.54	2,507
11/26	22	97438753.02	4,583	5/28	10	159742884.41	14,656

11/26	23	81021980.60	16,384	5/28	11	179288468.93	31,079
11/26	24	62701214.23	38,979	5/28	12	193581859.87	46,194
11/27	1	52548984.99	31,657	5/28	13	204483380.42	59,432
11/27	2	46847808.93	39,324	5/28	14	211991575.43	69,350
11/27	3	42264374.82	45,897	5/28	15	213763802.74	71,757
11/27	4	38752633.71	51,160	5/28	16	219518248.35	79,847
11/27	5	39504507.68	50,000	5/28	17	211850552.65	68,905
11/27	6	39656410.82	49,707	5/28	18	201103813.89	54,984
11/27	7	42541390.63	45,566	5/28	19	182250622.21	33,625
11/27	8	51072160.31	33,576	5/28	20	167667973.83	20,641
11/27	9	62115248.25	20,203	5/28	21	168725358.52	21,302
11/27	10	72674939.72	10,491	5/28	22	135963872.64	2,501
11/27	11	76809013.44	7,693	5/28	23	102728671.08	2,793
11/27	12	77227574.56	7,335	5/28	24	74949406.51	20,911
11/27	13	66897242.64	15,555	5/29	1	62566588.38	28,318
11/27	14	57290509.72	25,735	5/29	2	52195622.67	41,953
11/27	15	51155801.96	33,376	5/29	3	47467909.75	49,169
11/27	16	46840298.19	39,373	5/29	4	46027739.03	51,460
11/27	17	47783657.92	38,066	5/29	5	50636228.37	44,337
11/27	18	63694722.12	18,594	5/29	6	62604370.59	28,277
11/27	19	66893602.41	15,578	5/29	7	77705878.60	13,478
11/27	20	66084987.10	16,358	5/29	8	96703172.04	2,783
11/27	21	64975157.34	17,402	5/29	9	110944160.26	144
11/27	22	60639134.58	21,968	5/29	10	126593300.13	1,847
11/27	23	55034736.31	28,520	5/29	11	139866973.74	6,858
11/27	24	47355214.63	38,588	5/29	12	148508099.46	11,728
11/28	1	40273844.86	42,004	5/29	13	157005420.61	17,651
11/28	2	39224261.48	43,557	5/29	14	158859779.86	18,786
11/28	3	36110525.45	47,741	5/29	15	161234510.19	20,980
11/28	4	35195012.12	49,078	5/29	16	161746414.02	21,095
11/28	5	38753998.77	44,224	5/29	17	160320425.99	20,244
11/28	6	39996099.09	42,528	5/29	18	148753159.58	11,717
11/28	7	47615620.19	32,239	5/29	19	134202873.31	4,197
11/28	8	61937895.82	16,273	5/29	20	122927158.03	977
11/28	9	71778630.07	8,103	5/29	21	126297762.57	1,639
11/28	10	78649790.76	4,311	5/29	22	104648426.41	633
11/28	11	77569453.25	4,821	5/29	23	82401418.14	10,028
11/28	12	75137894.43	6,069	5/29	24	64908245.34	25,631
11/28	13	69723642.01	9,748	5/30	1	48503387.12	28,752
11/28	14	65875137.30	12,610	5/30	2	43178674.60	35,505
11/28	15	61999142.64	16,086	5/30	3	39878921.72	40,024
11/28	16	60151761.12	18,043	5/30	4	37782493.74	43,113
11/28	17	65161505.10	13,423	5/30	5	38160756.90	42,560
11/28	18	87495959.32	1,057	5/30	6	38773932.63	41,594
11/28	19	93939639.58	103	5/30	7	45265973.02	32,856
11/28	20	90675334.70	452	5/30	8	56663892.97	19,913

11/28	21	87546513.75	1,036	5/30	9	71149160.27	8,190
11/28	22	79073719.83	4,026	5/30	10	87496940.76	1,196
11/28	23	69406213.86	9,895	5/30	11	99132820.54	172
11/28	24	51514474.03	27,461	5/30	12	105882277.68	577
11/29	1	50847716.07	24,779	5/30	13	110995985.16	1,922
11/29	2	44549536.04	32,283	5/30	14	116000538.37	3,295
11/29	3	40929398.05	36,986	5/30	15	122253400.39	5,897
11/29	4	38313797.62	40,261	5/30	16	125935736.70	8,021
11/29	5	38709515.54	39,817	5/30	17	130023959.65	10,242
11/29	6	41027166.18	36,787	5/30	18	128384753.69	9,351
11/29	7	45603337.61	31,043	5/30	19	121374725.29	5,527
11/29	8	51020225.50	24,547	5/30	20	115340585.79	3,060
11/29	9	60367855.02	14,941	5/30	21	114571877.99	2,751
11/29	10	68994659.56	8,156	5/30	22	99970742.63	22
11/29	11	69726559.03	7,760	5/30	23	77588353.39	4,549
11/29	12	66401870.60	10,133	5/30	24	60269493.13	16,441
11/29	13	60524646.39	14,981	5/31	1	50686556.57	30,779
11/29	14	54800680.90	20,482	5/31	2	41826911.66	42,805
11/29	15	51068496.99	24,599	5/31	3	37895204.33	48,702
11/29	16	49156005.54	26,841	5/31	4	35613003.19	52,214
11/29	17	54023705.78	21,362	5/31	5	35286542.95	52,691
11/29	18	83971919.37	1,191	5/31	6	33435152.00	55,614
11/29	19	88898600.12	167	5/31	7	37680993.21	49,028
11/29	20	79717054.23	2,535	5/31	8	45918134.08	37,022
11/29	21	74890162.61	4,821	5/31	9	59749951.37	20,612
11/29	22	69673649.72	7,614	5/31	10	77434998.04	6,777
11/29	23	59194372.85	16,126	5/31	11	99148927.87	150
11/29	24	47884367.31	28,273	5/31	12	106499440.32	134
11/30	1	47216269.14	38,585	5/31	13	117670813.94	2,524
11/30	2	40956949.39	47,595	5/31	14	131879836.98	8,582
11/30	3	36915307.79	53,488	5/31	15	125699260.36	5,576
11/30	4	35823333.48	55,072	5/31	16	132496724.02	9,189
11/30	5	37095945.61	53,245	5/31	17	142149589.95	15,401
11/30	6	37550323.67	52,562	5/31	18	134988416.35	10,508
11/30	7	39677788.52	49,408	5/31	19	126888693.99	5,900
11/30	8	45144268.09	41,491	5/31	20	122106741.49	4,054
11/30	9	56870174.90	25,954	5/31	21	126161675.68	5,695
11/30	10	63196756.61	18,878	5/31	22	108214279.52	265
11/30	11	62560036.00	19,634	5/31	23	81997017.55	4,361
11/30	12	61902698.64	20,351	5/31	24	63509846.84	17,073
11/30	13	61612489.90	20,580	6/1	1	51574484.15	25,321
11/30	14	58297077.75	24,413	6/1	2	42698096.27	36,298
11/30	15	57687986.89	25,062	6/1	3	38509388.17	42,180
11/30	16	58039595.72	24,719	6/1	4	36213903.14	45,407
11/30	17	65816353.51	16,383	6/1	5	36096515.72	45,657
11/30	18	94547394.61	551	6/1	6	35980178.92	45,753

11/30	19	98502896.40	121	6/1	7	39109816.59	41,331
11/30	20	94637711.00	316	6/1	8	50932090.09	26,097
11/30	21	93383549.31	609	6/1	9	59784636.00	16,936
11/30	22	85863627.70	2,699	6/1	10	76387637.89	5,115
11/30	23	67597997.42	14,690	6/1	11	96502393.29	10
11/30	24	52472537.79	31,563	6/1	12	110347975.39	1,438
12/1	1	51478291.13	68,755	6/1	13	113297132.18	2,487
12/1	2	47934302.01	75,745	6/1	14	119166981.89	4,441
12/1	3	45551176.37	80,441	6/1	15	121043995.43	5,463
12/1	4	46223022.76	79,110	6/1	16	125641942.35	7,670
12/1	5	51181147.15	69,316	6/1	17	128784239.24	9,473
12/1	6	59414299.04	54,167	6/1	18	126119529.35	7,738
12/1	7	84489487.43	19,086	6/1	19	120136446.98	4,940
12/1	8	119578789.79	95	6/1	20	114475975.15	2,912
12/1	9	128248343.66	582	6/1	21	124284583.27	7,112
12/1	10	127577515.25	290	6/1	22	100169657.61	131
12/1	11	125979752.78	93	6/1	23	77654980.32	4,687
12/1	12	124691943.29	82	6/1	24	62402157.47	14,606
12/1	13	122880152.57	-60	6/2	1	57762188.44	30,873
12/1	14	118522181.28	258	6/2	2	51016564.87	38,066
12/1	15	115208322.18	665	6/2	3	47454641.49	41,971
12/1	16	108922180.18	2,379	6/2	4	46256506.61	43,341
12/1	17	117504468.36	284	6/2	5	51090812.85	37,945
12/1	18	143088561.21	5,100	6/2	6	65402740.24	23,361
12/1	19	150884626.04	9,830	6/2	7	93547706.66	4,023
12/1	20	151246726.37	10,079	6/2	8	117649555.98	2
12/1	21	136837378.28	2,426	6/2	9	133505089.43	3,786
12/1	22	120885996.02	-33	6/2	10	152121827.07	13,839
12/1	23	102643317.83	4,990	6/2	11	168232992.86	26,959
12/1	24	74346263.25	31,066	6/2	12	186630125.37	47,388
12/2	1	65870737.21	52,035	6/2	13	199364378.66	63,783
12/2	2	59350819.93	56,313	6/2	14	211615046.92	82,016
12/2	3	57240602.58	57,016	6/2	15	213929092.92	85,755
12/2	4	56206189.12	57,103	6/2	16	218931669.86	93,850
12/2	5	58475674.43	56,570	6/2	17	212215309.29	83,255
12/2	6	66586719.81	51,422	6/2	18	200688675.50	65,723
12/2	7	90083616.50	23,669	6/2	19	185931730.08	46,165
12/2	8	119958975.91	599	6/2	20	171451935.89	30,261
12/2	9	124858579.18	137	6/2	21	168726933.23	27,307
12/2	10	124162688.61	165	6/2	22	144018641.54	8,386
12/2	11	120603826.17	619	6/2	23	106441789.44	489
12/2	12	117304956.03	1,492	6/2	24	82382620.75	9,778
12/2	13	113115188.31	3,285	6/3	1	73807818.61	19,550
12/2	14	110119066.23	4,782	6/3	2	62307568.17	30,625
12/2	15	106139208.94	7,701	6/3	3	56815497.18	36,795
12/2	16	104049018.32	9,212	6/3	4	55487680.43	38,348

12/2	17	107002292.35	6,992	6/3	5	63052062.41	29,965
12/2	18	134885184.21	1,796	6/3	6	78831728.97	15,384
12/2	19	142615031.23	6,325	6/3	7	98716296.65	3,749
12/2	20	142760182.80	6,800	6/3	8	119675291.97	165
12/2	21	132572822.44	1,211	6/3	9	135555865.12	2,799
12/2	22	118836313.97	972	6/3	10	153784241.95	11,822
12/2	23	104404130.24	9,062	6/3	11	171915947.14	26,555
12/2	24	81517542.57	34,277	6/3	12	184656508.89	39,535
12/3	1	71036329.97	65,333	6/3	13	195858428.18	53,380
12/3	2	64954959.73	73,026	6/3	14	205033678.48	65,855
12/3	3	60401294.31	77,306	6/3	15	204696856.51	65,230
12/3	4	58484118.91	78,643	6/3	16	205210397.71	66,133
12/3	5	63862770.89	74,292	6/3	17	203430114.57	63,466
12/3	6	76521227.12	57,140	6/3	18	192567629.62	49,082
12/3	7	103695886.01	17,512	6/3	19	172388058.38	27,042
12/3	8	128155954.51	364	6/3	20	169390038.68	24,142
12/3	9	129622359.01	252	6/3	21	161919856.19	17,899
12/3	10	130599882.59	163	6/3	22	140479465.85	4,913
12/3	11	127588460.36	420	6/3	23	113559785.59	125
12/3	12	130512166.58	-33	6/3	24	85380500.70	10,504
12/3	13	127018285.28	512	6/4	1	65644218.73	14,403
12/3	14	126698329.21	589	6/4	2	55100836.77	22,941
12/3	15	122214070.89	2,424	6/4	3	49669836.39	27,665
12/3	16	117492332.99	4,939	6/4	4	48750925.91	28,575
12/3	17	126772015.06	817	6/4	5	54120521.36	23,812
12/3	18	150887531.99	8,049	6/4	6	67279448.37	13,088
12/3	19	158526042.08	15,844	6/4	7	88814246.22	2,334
12/3	20	159851911.15	17,241	6/4	8	99566225.94	311
12/3	21	149198748.54	6,404	6/4	9	118684673.26	2,003
12/3	22	136226918.89	225	6/4	10	130523946.86	7,025
12/3	23	116381541.11	5,528	6/4	11	141875576.57	13,810
12/3	24	92575070.81	32,238	6/4	12	151805642.34	21,471
12/4	1	80032767.03	30,825	6/4	13	157003177.87	26,503
12/4	2	72597688.82	39,039	6/4	14	163184586.16	32,476
12/4	3	65959980.49	45,146	6/4	15	165953881.84	35,543
12/4	4	64924473.87	45,919	6/4	16	165254725.98	34,780
12/4	5	69686145.37	41,896	6/4	17	163451465.10	33,003
12/4	6	86178713.79	23,857	6/4	18	154095274.08	23,417
12/4	7	110285933.29	3,057	6/4	19	144703367.17	15,707
12/4	8	134267652.57	2,808	6/4	20	134775311.19	9,259
12/4	9	135748986.36	3,566	6/4	21	135757065.42	9,594
12/4	10	138227829.46	5,271	6/4	22	115176020.98	1,126
12/4	11	137022322.85	4,381	6/4	23	93735274.69	1,026
12/4	12	131213769.73	1,520	6/4	24	73284280.60	9,329
12/4	13	130006990.89	1,260	6/5	1	66080576.91	21,679
12/4	14	129539021.74	834	6/5	2	54329498.23	33,267

12/4	15	125893007.05	258	6/5	3	49766853.58	38,008
12/4	16	123254674.69	-49	6/5	4	48619970.94	39,315
12/4	17	128709065.14	874	6/5	5	53869890.88	33,617
12/4	18	148321445.52	14,339	6/5	6	63612767.61	23,836
12/4	19	158638236.09	28,355	6/5	7	88575391.44	5,865
12/4	20	157100384.20	26,172	6/5	8	109111323.62	130
12/4	21	149284521.04	15,285	6/5	9	123039396.69	1,111
12/4	22	138197820.72	5,035	6/5	10	135126595.02	4,777
12/4	23	122227803.97	77	6/5	11	149784002.63	12,683
12/4	24	102299120.27	8,258	6/5	12	160925341.08	21,593
12/5	1	90691447.47	17,707	6/5	13	169615178.42	29,664
12/5	2	81207852.06	27,873	6/5	14	183174496.25	44,186
12/5	3	73846464.73	35,938	6/5	15	179778362.50	40,643
12/5	4	73207427.02	36,546	6/5	16	178904638.05	39,460
12/5	5	79800605.37	29,507	6/5	17	173996678.41	34,219
12/5	6	96408167.88	12,212	6/5	18	160425180.69	20,982
12/5	7	126382151.12	592	6/5	19	145046254.43	9,798
12/5	8	153205397.03	21,407	6/5	20	131680157.00	3,375
12/5	9	150386851.85	17,944	6/5	21	131867968.72	3,497
12/5	10	145385482.34	12,109	6/5	22	114440249.75	11
12/5	11	143434293.73	10,050	6/5	23	93818839.78	3,681
12/5	12	137341147.14	5,240	6/5	24	73852110.89	15,139
12/5	13	133150207.42	2,588	6/6	1	65440155.32	10,733
12/5	14	129340600.12	1,049	6/6	2	53930132.07	18,816
12/5	15	124688143.58	201	6/6	3	48040975.92	23,611
12/5	16	122205332.24	-128	6/6	4	45548109.40	25,627
12/5	17	124048451.13	172	6/6	5	46671223.51	24,633
12/5	18	140801294.98	7,643	6/6	6	48692334.85	23,005
12/5	19	152256330.78	20,083	6/6	7	56603978.46	16,787
12/5	20	150677681.00	18,310	6/6	8	74175763.09	5,758
12/5	21	144799260.29	11,633	6/6	9	85060787.65	1,826
12/5	22	133366777.37	2,965	6/6	10	100129635.53	25
12/5	23	115643227.42	742	6/6	11	112969430.85	1,983
12/5	24	96993540.36	11,670	6/6	12	118758641.84	4,155
12/6	1	83090111.58	1,630	6/6	13	119986693.31	4,648
12/6	2	74315281.92	3,920	6/6	14	121605316.84	5,289
12/6	3	67983488.45	5,472	6/6	15	125513363.78	7,122
12/6	4	65348237.34	5,608	6/6	16	127820397.90	8,354
12/6	5	67180808.48	5,508	6/6	17	126467220.04	7,642
12/6	6	71292602.56	4,719	6/6	18	122954113.66	5,680
12/6	7	81862223.65	1,961	6/6	19	116365873.99	3,061
12/6	8	93623422.72	141	6/6	20	112126468.22	1,868
12/6	9	101230084.92	287	6/6	21	110066957.58	1,477
12/6	10	107398750.38	1,886	6/6	22	96979799.74	-8
12/6	11	106707622.53	1,715	6/6	23	79076913.49	3,684
12/6	12	103402268.94	835	6/6	24	62895998.85	12,338

12/6	13	95748349.15	101	6/7	1	52344964.78	30,560
12/6	14	90018988.19	480	6/7	2	43809680.63	39,170
12/6	15	86660212.53	1,032	6/7	3	40250552.98	42,696
12/6	16	84820129.61	1,427	6/7	4	38647355.30	44,231
12/6	17	90795222.80	244	6/7	5	38468637.57	44,331
12/6	18	116817211.95	6,940	6/7	6	37911325.58	44,796
12/6	19	126702813.56	15,875	6/7	7	43234477.66	39,643
12/6	20	122025041.97	11,185	6/7	8	53473306.88	29,441
12/6	21	116370091.91	6,402	6/7	9	61185463.21	22,116
12/6	22	107583138.53	1,866	6/7	10	69112599.09	15,511
12/6	23	99638412.96	211	6/7	11	78364304.71	9,046
12/6	24	86818701.72	928	6/7	12	87079075.61	4,529
12/7	1	81840241.19	10,220	6/7	13	89795801.78	3,446
12/7	2	70429187.29	16,945	6/7	14	91380679.41	3,010
12/7	3	65542129.85	18,863	6/7	15	94345704.87	2,107
12/7	4	63935952.06	19,247	6/7	16	95547954.49	1,751
12/7	5	65132139.75	19,062	6/7	17	98033946.17	1,133
12/7	6	67108214.45	18,312	6/7	18	95688146.67	1,806
12/7	7	78114834.47	12,510	6/7	19	93221653.98	2,382
12/7	8	85274957.72	8,061	6/7	20	89937874.34	3,436
12/7	9	93429842.28	3,790	6/7	21	99046410.06	947
12/7	10	95643143.50	2,929	6/7	22	84671944.45	5,812
12/7	11	92077747.32	4,537	6/7	23	67882880.01	16,448
12/7	12	92064002.72	4,351	6/7	24	55651182.78	27,254
12/7	13	90367574.41	5,346	6/8	1	43923407.01	25,581
12/7	14	90105667.91	5,538	6/8	2	38270490.50	30,202
12/7	15	86949551.25	7,208	6/8	3	35263070.27	32,335
12/7	16	86140859.58	7,576	6/8	4	35650267.24	32,035
12/7	17	98085617.01	1,946	6/8	5	41301468.49	27,830
12/7	18	133275733.97	11,461	6/8	6	52862745.01	18,539
12/7	19	141238614.84	20,943	6/8	7	76497168.65	4,250
12/7	20	139927516.97	19,229	6/8	8	90316354.24	538
12/7	21	136888169.31	15,351	6/8	9	102481012.39	235
12/7	22	124928956.49	4,991	6/8	10	113221493.58	2,695
12/7	23	110809729.71	-51	6/8	11	122443308.94	6,107
12/7	24	89089353.00	5,914	6/8	12	129154088.56	10,034
12/8	1	75412226.68	33,604	6/8	13	133843324.14	12,965
12/8	2	67804430.87	40,866	6/8	14	138911796.66	16,665
12/8	3	63864726.82	43,801	6/8	15	141252470.02	18,534
12/8	4	64797494.42	43,080	6/8	16	140694189.95	18,110
12/8	5	69265515.30	39,712	6/8	17	139679272.14	17,186
12/8	6	78990261.54	29,822	6/8	18	132658884.63	12,093
12/8	7	113813981.74	1,367	6/8	19	127135127.33	8,557
12/8	8	139952290.10	7,292	6/8	20	122682870.98	6,288
12/8	9	150542732.38	18,408	6/8	21	120104389.62	5,280
12/8	10	154005308.34	22,969	6/8	22	107681685.99	1,074

12/8	11	147663049.11	14,887	6/8	23	84292981.30	1,700
12/8	12	144862038.63	11,591	6/8	24	65364545.00	9,937
12/8	13	138263982.58	5,858	6/9	1	52622109.43	15,222
12/8	14	136086582.00	4,421	6/9	2	44033155.31	21,396
12/8	15	131540576.41	2,104	6/9	3	39664738.81	24,691
12/8	16	130996442.39	1,977	6/9	4	39735299.57	24,533
12/8	17	137023000.64	5,088	6/9	5	46264259.99	19,703
12/8	18	158576484.66	30,354	6/9	6	58337383.48	11,487
12/8	19	164774320.68	41,376	6/9	7	78573012.80	2,031
12/8	20	165648322.38	42,939	6/9	8	91677215.84	106
12/8	21	161206316.99	34,494	6/9	9	103720288.72	1,284
12/8	22	153275186.92	21,891	6/9	10	115170638.08	4,698
12/8	23	128079107.78	918	6/9	11	118392181.06	6,428
12/8	24	106800493.70	4,459	6/9	12	123672822.78	9,193
12/9	1	90669292.94	24,208	6/9	13	126495372.22	10,731
12/9	2	81234363.71	36,131	6/9	14	131356387.98	14,057
12/9	3	74935360.46	44,202	6/9	15	129915648.05	13,035
12/9	4	74643894.78	44,505	6/9	16	128350479.74	12,006
12/9	5	79159981.09	38,808	6/9	17	123657084.48	9,281
12/9	6	92246366.04	22,297	6/9	18	117867125.11	6,030
12/9	7	122635307.05	191	6/9	19	109647840.73	2,613
12/9	8	142783919.61	6,150	6/9	20	107605348.76	2,210
12/9	9	159636937.54	25,309	6/9	21	106904759.88	1,779
12/9	10	158493674.57	23,202	6/9	22	99635718.73	485
12/9	11	154389031.97	17,610	6/9	23	80123925.36	1,644
12/9	12	152222696.83	15,170	6/9	24	62878202.84	8,647
12/9	13	146589375.03	9,314	6/10	1	54114618.63	20,242
12/9	14	147618706.55	10,104	6/10	2	44649221.29	28,425
12/9	15	142698759.55	6,173	6/10	3	40937065.64	31,537
12/9	16	141167968.65	5,101	6/10	4	40451799.90	31,975
12/9	17	148325751.01	10,851	6/10	5	46790248.74	26,455
12/9	18	171337268.28	45,814	6/10	6	60531797.34	15,357
12/9	19	180715537.05	67,264	6/10	7	80740042.89	3,705
12/9	20	182386324.14	71,376	6/10	8	93457625.99	592
12/9	21	174960556.13	53,996	6/10	9	105026835.09	217
12/9	22	165811547.99	35,306	6/10	10	113374581.23	1,650
12/9	23	135370332.41	1,976	6/10	11	120385100.46	3,901
12/9	24	110270281.77	5,297	6/10	12	131891046.61	9,466
12/10	1	85489998.36	48,062	6/10	13	137917057.30	13,410
12/10	2	76427251.83	63,189	6/10	14	140560908.93	15,509
12/10	3	68858279.11	74,989	6/10	15	141287112.25	15,848
12/10	4	67976532.38	76,158	6/10	16	141917975.06	16,293
12/10	5	73041828.18	68,683	6/10	17	139600944.96	14,773
12/10	6	86972513.37	45,516	6/10	18	134686254.19	11,172
12/10	7	124244152.70	2,418	6/10	19	124682444.17	5,840
12/10	8	150859927.12	6,116	6/10	20	116742908.17	2,487

12/10	9	156737203.76	11,485	6/10	21	115055846.05	2,006
12/10	10	157973437.66	13,015	6/10	22	106694602.56	523
12/10	11	155407744.29	10,088	6/10	23	90707058.69	1,044
12/10	12	154774923.34	9,704	6/10	24	71338344.69	8,209
12/10	13	153868957.04	8,565	6/11	1	60425348.78	23,837
12/10	14	151527820.58	6,563	6/11	2	49196840.85	34,933
12/10	15	146894850.93	3,509	6/11	3	44874251.89	39,345
12/10	16	148881195.11	4,845	6/11	4	44570969.93	39,660
12/10	17	154003096.54	8,761	6/11	5	50846720.12	33,192
12/10	18	182950723.69	54,763	6/11	6	62432940.48	22,050
12/10	19	190481050.79	73,000	6/11	7	79976635.96	8,873
12/10	20	187607309.94	65,540	6/11	8	97930663.29	1,367
12/10	21	184461656.48	58,180	6/11	9	115926008.09	413
12/10	22	172191431.82	33,080	6/11	10	129636686.49	3,835
12/10	23	148328621.39	4,363	6/11	11	138178044.79	7,675
12/10	24	123764133.39	2,539	6/11	12	148140696.02	14,064
12/11	1	115548478.16	19,503	6/11	13	154261293.74	18,643
12/11	2	104729949.85	36,100	6/11	14	161570052.95	24,818
12/11	3	98313308.42	47,875	6/11	15	164577800.14	27,604
12/11	4	98003059.57	48,458	6/11	16	168392544.26	31,464
12/11	5	104075148.89	37,210	6/11	17	162428728.48	25,515
12/11	6	122132319.66	11,601	6/11	18	157364555.34	20,908
12/11	7	152373360.10	1,559	6/11	19	146864923.97	13,116
12/11	8	175978585.14	23,995	6/11	20	137306525.50	7,144
12/11	9	186292529.54	42,322	6/11	21	139788570.79	8,742
12/11	10	185313545.27	40,181	6/11	22	118343381.21	786
12/11	11	183680378.95	37,304	6/11	23	97390508.15	1,545
12/11	12	181085590.54	32,176	6/11	24	76024237.77	11,240
12/11	13	172070019.72	18,700	6/12	1	61490209.64	21,845
12/11	14	170304572.46	16,060	6/12	2	49623499.22	33,257
12/11	15	167173921.96	12,730	6/12	3	43766752.70	39,127
12/11	16	165901760.34	11,077	6/12	4	43241272.05	39,606
12/11	17	169663394.20	15,318	6/12	5	49964903.12	32,834
12/11	18	196015383.86	63,289	6/12	6	60409186.42	22,934
12/11	19	211670661.18	106,911	6/12	7	79467236.55	8,591
12/11	20	212567500.14	109,952	6/12	8	99239701.04	1,028
12/11	21	205588672.94	88,989	6/12	9	114295643.96	433
12/11	22	190707976.50	51,115	6/12	10	132271260.55	5,292
12/11	23	163483788.76	8,819	6/12	11	141067584.03	9,884
12/11	24	145471793.73	3	6/12	12	150989992.38	16,755
12/12	1	119055460.64	4,693	6/12	13	165329201.38	29,544
12/12	2	110609756.18	11,748	6/12	14	168072765.17	32,285
12/12	3	103657072.03	19,377	6/12	15	175319660.62	40,307
12/12	4	102405149.94	21,076	6/12	16	177038363.73	42,237
12/12	5	106977903.23	15,626	6/12	17	175695507.76	40,915
12/12	6	122330837.46	2,807	6/12	18	164654376.65	28,740

12/12	7	156199525.55	11,792	6/12	19	156291157.41	21,062
12/12	8	181202431.92	52,503	6/12	20	141781776.27	10,199
12/12	9	176624643.40	42,766	6/12	21	144064310.88	11,777
12/12	10	174094101.68	38,010	6/12	22	127189080.52	3,261
12/12	11	166613027.88	24,950	6/12	23	101000812.98	562
12/12	12	160500361.15	16,648	6/12	24	81489565.72	7,265
12/12	13	152745357.48	8,351	6/13	1	66405089.21	13,053
12/12	14	148103418.26	4,765	6/13	2	57637103.98	19,783
12/12	15	142840480.52	2,038	6/13	3	51973702.70	24,571
12/12	16	137733284.77	513	6/13	4	48880198.52	27,285
12/12	17	142470683.03	1,634	6/13	5	50349846.59	25,954
12/12	18	167440000.15	26,434	6/13	6	51523187.46	24,851
12/12	19	174964597.15	39,771	6/13	7	59173264.16	18,343
12/12	20	171553909.03	33,242	6/13	8	78106694.46	6,091
12/12	21	165084919.40	22,974	6/13	9	97730709.26	169
12/12	22	157746783.68	13,598	6/13	10	120626703.83	3,105
12/12	23	138167816.66	470	6/13	11	138696300.09	12,434
12/12	24	120129048.58	4,156	6/13	12	154886680.30	25,320
12/13	1	103746359.82	651	6/13	13	165386625.98	36,316
12/13	2	89795801.78	518	6/13	14	169725852.25	41,082
12/13	3	88137541.69	933	6/13	15	175350419.43	47,770
12/13	4	83635586.68	1,958	6/13	16	180587345.96	54,545
12/13	5	85218610.26	1,537	6/13	17	179884701.71	53,870
12/13	6	91798564.02	303	6/13	18	172801019.70	44,937
12/13	7	103625474.10	688	6/13	19	160653838.36	31,070
12/13	8	108553771.72	1,918	6/13	20	147169385.96	18,614
12/13	9	117344960.21	6,487	6/13	21	149027309.99	20,191
12/13	10	124928956.49	13,170	6/13	22	131529388.24	8,009
12/13	11	123042532.91	11,320	6/13	23	98902691.77	78
12/13	12	118974624.12	7,764	6/13	24	76361385.11	6,945
12/13	13	114750733.24	4,877	6/14	1	63122634.03	22,692
12/13	14	106193356.88	1,333	6/14	2	52975836.60	32,484
12/13	15	100010718.97	192	6/14	3	46179953.50	39,717
12/13	16	98819639.69	154	6/14	4	44774205.04	41,177
12/13	17	105837811.02	997	6/14	5	43472442.51	42,445
12/13	18	135130621.16	25,389	6/14	6	43779270.21	42,236
12/13	19	144152868.83	39,871	6/14	7	48325528.44	37,434
12/13	20	136520748.69	27,587	6/14	8	59737647.41	25,864
12/13	21	129221002.47	17,905	6/14	9	75348753.65	12,670
12/13	22	120558698.32	9,112	6/14	10	91292612.25	3,828
12/13	23	107205501.41	1,680	6/14	11	111151564.48	-73
12/13	24	90755415.37	332	6/14	12	129537719.90	3,147
12/14	1	74977065.20	11,588	6/14	13	135772551.27	6,005
12/14	2	64954563.75	15,680	6/14	14	148442033.36	13,263
12/14	3	60584130.68	16,302	6/14	15	151773539.22	15,634
12/14	4	57541967.10	16,103	6/14	16	158612629.74	20,989

12/14	5	57787301.56	16,208	6/14	17	160065577.01	22,147
12/14	6	61403842.86	16,351	6/14	18	152849457.83	16,564
12/14	7	71448551.30	13,481	6/14	19	145234172.74	11,159
12/14	8	77528964.11	10,391	6/14	20	140103750.02	7,961
12/14	9	86127273.81	5,854	6/14	21	148266917.05	12,915
12/14	10	91399920.60	3,329	6/14	22	125622840.53	2,198
12/14	11	92997903.85	2,865	6/14	23	97238993.39	1,879
12/14	12	92396322.49	3,033	6/14	24	77169729.13	11,422
12/14	13	92058912.50	3,064	6/15	1	57353480.77	38,310
12/14	14	90817903.54	3,713	6/15	2	47758901.08	49,730
12/14	15	89337672.46	4,242	6/15	3	44041536.58	54,155
12/14	16	90189398.38	3,852	6/15	4	44312448.71	53,826
12/14	17	98200748.29	1,061	6/15	5	50618026.38	46,232
12/14	18	132866923.83	13,235	6/15	6	57966597.01	37,623
12/14	19	140001157.46	21,981	6/15	7	81717778.52	14,343
12/14	20	135043407.31	15,769	6/15	8	102925453.28	2,720
12/14	21	133672132.32	14,039	6/15	9	124507753.36	206
12/14	22	128066841.20	8,860	6/15	10	145748663.26	6,372
12/14	23	105723610.26	-129	6/15	11	162893454.53	16,976
12/14	24	89020767.30	4,484	6/15	12	171703761.24	24,545
12/15	1	71621313.09	54,829	6/15	13	180902565.32	33,462
12/15	2	64239493.98	62,962	6/15	14	184208234.22	37,167
12/15	3	59732428.10	66,258	6/15	15	186688551.24	39,731
12/15	4	60787749.19	65,757	6/15	16	184245979.91	36,995
12/15	5	65053218.03	62,255	6/15	17	177358089.07	29,893
12/15	6	78629796.03	45,318	6/15	18	164572386.61	18,378
12/15	7	113125225.18	5,344	6/15	19	151270743.05	9,336
12/15	8	140539509.58	3,239	6/15	20	141865847.05	4,760
12/15	9	146356837.15	7,082	6/15	21	139485573.08	3,630
12/15	10	154394940.78	15,022	6/15	22	121989505.61	66
12/15	11	152460442.65	12,548	6/15	23	90892022.40	8,209
12/15	12	150944206.01	10,879	6/15	24	71428196.25	23,203
12/15	13	147255030.78	7,571	6/16	1	65795168.62	22,400
12/15	14	144498337.70	5,394	6/16	2	57835001.74	30,301
12/15	15	138124182.78	1,809	6/16	3	52981991.58	35,335
12/15	16	135795445.72	1,093	6/16	4	53702578.26	34,565
12/15	17	140403574.94	3,156	6/16	5	59154382.03	28,963
12/15	18	171856899.04	42,290	6/16	6	67437977.23	20,959
12/15	19	182942377.78	67,009	6/16	7	86467867.79	7,270
12/15	20	175792803.94	50,436	6/16	8	105421940.47	611
12/15	21	162412641.25	25,613	6/16	9	122103622.47	803
12/15	22	151162325.88	11,100	6/16	10	137017578.44	5,284
12/15	23	132884823.51	232	6/16	11	152944072.13	14,650
12/15	24	111478967.28	6,490	6/16	12	158480879.43	18,665
12/16	1	93839481.38	18,482	6/16	13	164543774.37	24,099
12/16	2	79617059.41	35,391	6/16	14	176043520.18	35,506

12/16	3	74362412.13	41,607	6/16	15	178209992.43	37,620
12/16	4	74392534.37	41,623	6/16	16	179940774.71	40,024
12/16	5	75819985.80	40,034	6/16	17	174546304.64	33,666
12/16	6	88276239.12	24,855	6/16	18	162872728.57	22,469
12/16	7	128006166.38	281	6/16	19	154080523.01	15,291
12/16	8	151191425.66	15,528	6/16	20	144408219.19	9,042
12/16	9	157020372.76	23,205	6/16	21	145077326.57	9,630
12/16	10	158990248.11	26,045	6/16	22	129552040.64	2,620
12/16	11	157016634.62	23,223	6/16	23	101567865.67	1,255
12/16	12	152546828.79	16,923	6/16	24	78982055.95	11,837
12/16	13	151112865.50	15,470	6/17	1	66732362.37	19,909
12/16	14	148282700.12	12,384	6/17	2	54275546.87	31,790
12/16	15	144706186.90	8,619	6/17	3	48406227.59	37,897
12/16	16	142492293.69	6,999	6/17	4	47706561.29	38,633
12/16	17	150327430.37	14,477	6/17	5	54522646.51	31,519
12/16	18	176512375.15	60,271	6/17	6	65581197.24	20,854
12/16	19	191589152.45	100,578	6/17	7	89358097.59	4,988
12/16	20	186943577.57	86,679	6/17	8	110529026.68	156
12/16	21	183305678.39	76,936	6/17	9	127261686.42	2,306
12/16	22	172254558.51	50,621	6/17	10	146214743.11	11,515
12/16	23	149026589.96	13,030	6/17	11	167501084.59	28,814
12/16	24	128834156.73	477	6/17	12	181073163.80	43,402
12/17	1	117237092.63	2,575	6/17	13	192211089.98	57,781
12/17	2	108334989.17	7,970	6/17	14	202855048.56	72,556
12/17	3	101382777.16	14,437	6/17	15	212540536.64	87,673
12/17	4	100278965.70	15,656	6/17	16	218366128.35	97,291
12/17	5	105222292.75	10,845	6/17	17	214299227.90	90,620
12/17	6	118563705.33	1,785	6/17	18	202815494.02	72,734
12/17	7	149157676.80	10,258	6/17	19	188703359.07	53,042
12/17	8	178206716.54	57,293	6/17	20	173582464.67	34,800
12/17	9	183518052.60	70,583	6/17	21	168821435.43	30,219
12/17	10	178192794.52	57,358	6/17	22	143214467.06	9,498
12/17	11	172448037.65	44,932	6/17	23	112791401.09	-51
12/17	12	164979531.99	30,963	6/17	24	90294265.72	4,393
12/17	13	154984422.70	16,328	6/18	1	78405560.90	41,258
12/17	14	151719558.63	12,737	6/18	2	64144084.44	61,704
12/17	15	148208099.90	9,449	6/18	3	58102427.52	71,183
12/17	16	144826767.49	6,412	6/18	4	59557770.77	68,909
12/17	17	152151059.73	13,246	6/18	5	67776662.46	56,099
12/17	18	181732627.65	65,793	6/18	6	78860411.83	40,667
12/17	19	202195036.13	125,079	6/18	7	105738794.40	13,430
12/17	20	198158629.78	112,182	6/18	8	124822450.58	3,057
12/17	21	186264627.79	77,296	6/18	9	146995352.10	317
12/17	22	170118372.27	40,464	6/18	10	171391409.99	7,318
12/17	23	152477277.86	13,409	6/18	11	201470362.49	29,481
12/17	24	133558979.27	857	6/18	12	222613242.94	52,984

12/18	1	120032899.23	-83	6/18	13	238573622.19	74,637
12/18	2	109632831.71	2,735	6/18	14	250726941.20	93,109
12/18	3	104619401.70	5,560	6/18	15	259194991.81	107,112
12/18	4	104116300.20	5,890	6/18	16	266329379.94	119,565
12/18	5	107149278.96	4,085	6/18	17	261350776.25	110,768
12/18	6	120496899.08	46	6/18	18	247038544.90	87,528
12/18	7	139888987.28	7,384	6/18	19	228681625.83	60,548
12/18	8	172159475.29	57,392	6/18	20	208917505.42	36,966
12/18	9	172038877.87	56,841	6/18	21	203655420.38	31,465
12/18	10	166833161.49	45,610	6/18	22	173137676.45	8,277
12/18	11	162573565.22	37,389	6/18	23	133462520.88	789
12/18	12	159685364.12	32,224	6/18	24	103608292.16	15,081
12/18	13	152122557.84	20,920	6/19	1	82626286.01	40,630
12/18	14	149267219.53	16,905	6/19	2	66219800.27	64,347
12/18	15	143325750.22	10,634	6/19	3	56554144.29	80,253
12/18	16	139311272.17	7,086	6/19	4	55588147.35	81,909
12/18	17	146787276.89	14,248	6/19	5	61133135.42	72,648
12/18	18	172318501.25	57,760	6/19	6	74531909.36	51,651
12/18	19	190436376.23	105,968	6/19	7	96543999.89	24,572
12/18	20	186562401.71	94,665	6/19	8	122128576.28	5,622
12/18	21	176692191.81	68,033	6/19	9	149004990.20	190
12/18	22	164892004.30	41,729	6/19	10	178710072.42	9,320
12/18	23	141596391.63	8,951	6/19	11	211795831.75	35,649
12/18	24	123745237.56	130	6/19	12	238436237.82	68,699
12/19	1	108082810.62	109	6/19	13	262023584.93	104,528
12/19	2	96284038.98	1,289	6/19	14	281919887.83	139,763
12/19	3	88895621.95	3,771	6/19	15	294467466.41	164,598
12/19	4	86345317.43	4,881	6/19	16	302786714.96	181,636
12/19	5	91294130.13	2,842	6/19	17	298473834.54	172,797
12/19	6	103302686.25	57	6/19	18	274998322.44	127,156
12/19	7	119314157.84	3,622	6/19	19	246645062.48	80,401
12/19	8	141008069.86	24,422	6/19	20	218566224.80	43,446
12/19	9	144297738.47	29,313	6/19	21	206704639.46	30,681
12/19	10	141437530.41	25,418	6/19	22	179420933.39	9,462
12/19	11	137616306.83	20,005	6/19	23	145007420.99	170
12/19	12	129280141.35	10,503	6/19	24	117445013.63	8,092
12/19	13	126656694.33	8,479	6/20	1	86757719.66	6,893
12/19	14	125956786.49	7,896	6/20	2	73943361.13	15,225
12/19	15	119744168.54	3,849	6/20	3	66135117.70	21,770
12/19	16	116520804.14	2,300	6/20	4	61662442.70	26,045
12/19	17	121707349.96	4,702	6/20	5	62047405.18	25,657
12/19	18	141401475.00	25,141	6/20	6	67210430.09	20,876
12/19	19	152927933.38	45,062	6/20	7	74293905.85	14,944
12/19	20	145798270.70	32,102	6/20	8	94854931.79	3,382
12/19	21	138553452.72	21,347	6/20	9	114067399.39	81
12/19	22	131483326.53	12,780	6/20	10	142132192.01	8,229

12/19	23	120476510.34	4,297	6/20	11	162601163.71	22,876
12/19	24	106973933.29	181	6/20	12	183527253.90	44,700
12/20	1	98436644.23	1,844	6/20	13	199153147.58	65,048
12/20	2	84959372.82	8,151	6/20	14	210082397.70	81,465
12/20	3	78395132.04	11,998	6/20	15	218263760.36	94,400
12/20	4	75218402.11	13,908	6/20	16	219338447.02	96,590
12/20	5	75966599.54	13,486	6/20	17	218965863.83	95,918
12/20	6	81841176.52	9,951	6/20	18	206431385.20	75,755
12/20	7	92643060.41	4,086	6/20	19	191040980.68	53,875
12/20	8	106108195.65	26	6/20	20	167393023.03	26,915
12/20	9	115022978.10	807	6/20	21	158643508.35	19,105
12/20	10	124415415.76	4,872	6/20	22	136166858.15	4,952
12/20	11	122647196.79	3,517	6/20	23	106062533.40	334
12/20	12	117451079.45	1,382	6/20	24	87932005.96	6,301
12/20	13	117558481.74	1,498	6/21	1	67334699.72	19,377
12/20	14	110793443.07	58	6/21	2	54029601.37	32,006
12/20	15	105956606.42	251	6/21	3	46839359.41	39,586
12/20	16	104942907.87	378	6/21	4	43511601.29	43,135
12/20	17	114188019.00	626	6/21	5	43247476.30	43,399
12/20	18	131959638.06	10,388	6/21	6	46339671.58	40,122
12/20	19	137628545.36	16,528	6/21	7	49232510.69	37,028
12/20	20	129938479.42	8,918	6/21	8	60204232.62	25,800
12/20	21	127901647.71	7,040	6/21	9	77438143.90	11,562
12/20	22	123118446.92	3,955	6/21	10	95611754.97	2,472
12/20	23	115579655.29	842	6/21	11	111526296.64	111
12/20	24	103376813.46	358	6/21	12	126155927.86	2,089
12/21	1	83637011.78	14,951	6/21	13	136890201.23	6,102
12/21	2	74442757.62	22,257	6/21	14	147742460.56	12,369
12/21	3	68797590.35	26,182	6/21	15	159396474.77	21,077
12/21	4	67060795.25	27,289	6/21	16	166074506.63	27,588
12/21	5	67915586.43	26,806	6/21	17	167545733.36	28,646
12/21	6	71029995.01	24,833	6/21	18	164937700.43	26,338
12/21	7	77021446.77	20,389	6/21	19	153900641.75	16,875
12/21	8	82417398.35	15,894	6/21	20	145973411.25	11,149
12/21	9	88085755.54	11,478	6/21	21	142703644.79	9,348
12/21	10	97045344.53	5,301	6/21	22	131153338.52	3,667
12/21	11	100230794.63	3,710	6/21	23	104109626.22	658
12/21	12	99373014.95	4,116	6/21	24	83795306.77	7,542
12/21	13	97143192.41	5,282	6/22	1	70943458.04	31,356
12/21	14	94652769.77	6,922	6/22	2	60527657.24	43,809
12/21	15	90597820.81	9,516	6/22	3	55067427.80	50,899
12/21	16	89459276.44	10,519	6/22	4	53818689.40	52,529
12/21	17	102080718.03	2,864	6/22	5	60734157.39	43,472
12/21	18	130693536.79	5,224	6/22	6	72864454.54	29,238
12/21	19	151256187.16	28,468	6/22	7	94630961.07	10,279
12/21	20	148744530.82	24,505	6/22	8	119904786.31	386

12/21	21	140784707.13	14,201	6/22	9	144967183.33	3,069
12/21	22	134526325.92	8,136	6/22	10	175087476.19	20,810
12/21	23	118865068.05	243	6/22	11	202232709.41	49,280
12/21	24	104959130.03	1,749	6/22	12	222336526.41	76,526
12/22	1	91452089.03	13,238	6/22	13	239058963.79	103,543
12/22	2	81818730.55	22,266	6/22	14	255306781.97	132,234
12/22	3	78114382.23	25,986	6/22	15	267343542.36	155,986
12/22	4	76917637.08	27,060	6/22	16	272403861.56	166,430
12/22	5	82466763.09	21,669	6/22	17	274639219.69	171,046
12/22	6	96072339.20	9,512	6/22	18	258054553.00	137,582
12/22	7	121049574.59	156	6/22	19	239392035.36	103,941
12/22	8	144994007.54	14,512	6/22	20	224237198.83	79,546
12/22	9	155827436.46	29,740	6/22	21	211292691.65	60,813
12/22	10	157383276.47	32,407	6/22	22	183227963.61	28,112
12/22	11	158724867.86	34,802	6/22	23	150884626.04	5,495
12/22	12	153419246.79	25,739	6/22	24	118636397.63	776
12/22	13	145699067.96	15,338	6/23	1	104671315.36	9,333
12/22	14	141979851.51	11,295	6/23	2	87111356.11	23,181
12/22	15	137473581.94	7,457	6/23	3	77056818.77	33,952
12/22	16	133094445.17	4,448	6/23	4	74416114.43	37,240
12/22	17	139702639.01	9,104	6/23	5	81953004.76	28,443
12/22	18	169736922.49	56,595	6/23	6	97082359.71	14,486
12/22	19	181848107.48	87,546	6/23	7	118440995.39	2,658
12/22	20	181093046.88	84,887	6/23	8	137525222.45	200
12/22	21	175630665.18	70,884	6/23	9	165940655.87	8,532
12/22	22	161446453.79	39,303	6/23	10	199281819.59	35,001
12/22	23	139706762.86	9,084	6/23	11	226800631.92	69,259
12/22	24	126022503.63	1,109	6/23	12	258636634.61	120,931
12/23	1	104424751.23	8,140	6/23	13	290713087.36	184,023
12/23	2	86825533.63	26,058	6/23	14	317183751.68	243,606
12/23	3	81179951.79	32,985	6/23	15	329642979.33	273,831
12/23	4	79953179.73	34,397	6/23	16	334958143.89	286,802
12/23	5	82733229.30	31,059	6/23	17	336539799.13	291,407
12/23	6	95957437.04	15,958	6/23	18	316464935.97	241,752
12/23	7	121729755.72	240	6/23	19	286572248.66	175,102
12/23	8	146540996.63	10,602	6/23	20	258071659.57	119,477
12/23	9	158604345.97	25,882	6/23	21	249653137.81	105,207
12/23	10	156944874.87	23,453	6/23	22	218666797.00	58,428
12/23	11	151258370.48	15,936	6/23	23	177725633.04	16,143
12/23	12	146457784.25	10,591	6/23	24	144605406.02	852
12/23	13	144805607.77	9,172	6/24	1	107840181.60	15,701
12/23	14	143928738.54	8,178	6/24	2	88218964.21	35,454
12/23	15	138781785.77	4,444	6/24	3	76777743.18	50,563
12/23	16	134272996.20	1,960	6/24	4	74384675.55	54,090
12/23	17	138212824.50	4,218	6/24	5	81482572.59	43,984
12/23	18	164222326.44	35,396	6/24	6	95791292.79	26,905

12/23	19	174131148.93	55,037	6/24	7	115193965.28	10,433
12/23	20	175882837.45	59,214	6/24	8	146182075.54	-4
12/23	21	167851454.91	41,871	6/24	9	170137381.73	4,277
12/23	22	153839487.11	19,072	6/24	10	204971173.32	27,535
12/23	23	137907524.02	3,840	6/24	11	235978059.50	62,748
12/23	24	117065137.14	1,251	6/24	12	268639913.07	113,034
12/24	1	91292612.25	39,497	6/24	13	304373105.92	181,072
12/24	2	76507415.11	64,449	6/24	14	332988609.77	244,514
12/24	3	70798836.71	73,593	6/24	15	350657578.91	287,256
12/24	4	68624406.10	76,834	6/24	16	355063808.22	298,394
12/24	5	72266611.11	71,368	6/24	17	350999014.19	288,454
12/24	6	84355100.90	51,093	6/24	18	331133604.58	240,530
12/24	7	109385396.39	14,508	6/24	19	298289855.59	168,486
12/24	8	134058703.42	10	6/24	20	263008579.10	103,250
12/24	9	147427142.54	3,750	6/24	21	247503020.26	79,009
12/24	10	146448540.53	3,102	6/24	22	211703107.70	33,877
12/24	11	147705254.97	3,578	6/24	23	171581799.91	4,787
12/24	12	141158274.10	719	6/24	24	139288638.29	607
12/24	13	137720359.27	48	6/25	1	100177230.65	3,039
12/24	14	133816002.81	-90	6/25	2	80736801.01	13,542
12/24	15	127621943.71	1,282	6/25	3	72490494.01	20,286
12/24	16	123563314.10	2,939	6/25	4	70111121.69	22,501
12/24	17	126204470.97	1,828	6/25	5	76520781.54	16,784
12/24	18	154259817.45	8,789	6/25	6	90311333.78	7,510
12/24	19	166886274.67	23,805	6/25	7	110115591.77	433
12/24	20	164952418.07	20,942	6/25	8	132986951.18	2,283
12/24	21	153520735.16	8,147	6/25	9	154011943.86	12,186
12/24	22	145724572.60	2,801	6/25	10	177223460.18	31,822
12/24	23	124809141.94	2,405	6/25	11	200055999.09	59,213
12/24	24	95254449.70	33,217	6/25	12	223585632.25	94,850
12/25	1	78537595.02	25,490	6/25	13	243944374.54	131,412
12/25	2	67771354.73	34,894	6/25	14	256956100.28	156,840
12/25	3	63896418.91	37,297	6/25	15	266863495.44	177,802
12/25	4	61290975.08	38,534	6/25	16	267059603.94	177,690
12/25	5	61280342.05	38,590	6/25	17	261755608.18	166,945
12/25	6	64207286.76	37,147	6/25	18	244308026.48	131,767
12/25	7	71980529.21	31,566	6/25	19	220341548.95	89,426
12/25	8	81326505.24	22,840	6/25	20	198018994.05	56,463
12/25	9	95024592.20	10,333	6/25	21	186518390.82	42,096
12/25	10	103746914.58	4,322	6/25	22	163296067.99	19,331
12/25	11	103923435.19	4,178	6/25	23	125989960.99	546
12/25	12	104700908.86	3,771	6/25	24	96866229.09	4,286
12/25	13	95575667.33	9,766	6/26	1	76306230.96	36,156
12/25	14	88026598.20	16,439	6/26	2	65250452.90	50,561
12/25	15	83289331.36	20,966	6/26	3	58016959.04	60,983
12/25	16	80574826.76	23,614	6/26	4	56364418.92	63,417

12/25	17	84210365.53	19,997	6/26	5	60804362.00	56,874
12/25	18	107937756.90	2,433	6/26	6	70553930.07	43,412
12/25	19	113929067.32	341	6/26	7	87725832.27	23,621
12/25	20	106692338.34	2,949	6/26	8	110771342.53	6,461
12/25	21	99648651.48	6,842	6/26	9	138038988.96	6
12/25	22	96744840.95	9,038	6/26	10	160384183.85	5,070
12/25	23	88388397.64	16,033	6/26	11	186523468.61	21,944
12/25	24	78067811.76	26,017	6/26	12	206710107.20	42,171
12/26	1	66671414.76	41,762	6/26	13	226559114.03	67,627
12/26	2	56252946.08	46,103	6/26	14	241769621.67	90,060
12/26	3	50725983.39	43,853	6/26	15	254665502.27	111,478
12/26	4	47729712.59	40,859	6/26	16	261848513.24	124,770
12/26	5	46884436.21	39,669	6/26	17	256499140.67	115,125
12/26	6	50694175.16	44,019	6/26	18	243479592.00	92,955
12/26	7	55785924.99	46,091	6/26	19	221337419.37	60,518
12/26	8	59713417.66	45,674	6/26	20	191732414.89	26,594
12/26	9	66272013.21	42,050	6/26	21	181364110.50	18,016
12/26	10	74541965.60	34,664	6/26	22	152409213.29	2,193
12/26	11	74342771.93	34,790	6/26	23	121999479.98	1,956
12/26	12	74191885.30	35,027	6/26	24	99224657.57	13,554
12/26	13	70024138.33	39,006	6/27	1	74756877.61	12,432
12/26	14	64617025.46	43,312	6/27	2	60427604.24	24,369
12/26	15	59700373.80	45,741	6/27	3	54253629.28	30,322
12/26	16	58888642.48	45,932	6/27	4	51149800.47	33,508
12/26	17	60324291.23	45,418	6/27	5	50573699.42	34,164
12/26	18	82240800.06	26,239	6/27	6	52667381.21	31,946
12/26	19	90784639.85	17,273	6/27	7	56605771.64	28,056
12/26	20	90904631.97	17,073	6/27	8	75841234.37	11,769
12/26	21	89171407.57	18,958	6/27	9	99150538.71	1,266
12/26	22	83466124.38	24,910	6/27	10	125299064.91	2,351
12/26	23	76162253.90	32,835	6/27	11	152516809.28	16,706
12/26	24	67158902.65	41,374	6/27	12	167326488.37	30,059
12/27	1	64052697.08	36,662	6/27	13	179871509.89	43,826
12/27	2	55825683.26	38,462	6/27	14	196272495.55	64,987
12/27	3	55182838.44	38,369	6/27	15	210520666.33	87,094
12/27	4	52302264.26	37,271	6/27	16	216121063.23	96,294
12/27	5	52549324.93	37,356	6/27	17	221332633.00	105,301
12/27	6	56469964.13	38,532	6/27	18	212894977.63	90,620
12/27	7	61513433.24	37,910	6/27	19	198415107.67	68,441
12/27	8	71027883.45	31,968	6/27	20	174214928.85	37,012
12/27	9	80739116.63	22,946	6/27	21	164211516.35	26,579
12/27	10	95038132.80	10,014	6/27	22	147957956.24	13,357
12/27	11	97614913.19	8,064	6/27	23	113724462.76	117
12/27	12	98016371.90	7,884	6/27	24	94526641.00	2,388
12/27	13	92736668.76	12,019	6/28	1	73494412.59	17,618
12/27	14	85471178.80	18,377	6/28	2	60313779.23	30,195

12/27	15	81109766.65	22,590	6/28	3	52280923.40	38,965
12/27	16	79197427.67	24,537	6/28	4	48214246.07	43,506
12/27	17	84534476.74	19,371	6/28	5	46407710.91	45,613
12/27	18	115835896.59	29	6/28	6	47604221.77	44,230
12/27	19	123980954.09	702	6/28	7	48589761.86	43,124
12/27	20	117438341.49	44	6/28	8	69173902.11	21,399
12/27	21	114863515.21	227	6/28	9	91674678.41	5,802
12/27	22	108241731.02	2,113	6/28	10	113311318.47	47
12/27	23	96516611.82	8,820	6/28	11	140417371.09	5,905
12/27	24	79534104.83	24,142	6/28	12	162585830.80	20,122
12/28	1	74022075.25	30,395	6/28	13	180256007.01	37,328
12/28	2	65123014.62	37,401	6/28	14	198962468.17	60,812
12/28	3	60716803.96	39,409	6/28	15	210412652.80	77,126
12/28	4	58426126.70	39,810	6/28	16	224445988.55	100,058
12/28	5	58468699.21	39,774	6/28	17	225924067.58	102,442
12/28	6	61256042.99	39,186	6/28	18	219803865.15	92,498
12/28	7	66729132.35	36,348	6/28	19	203105989.56	66,418
12/28	8	74355864.98	29,961	6/28	20	180976256.28	38,268
12/28	9	82371813.64	22,182	6/28	21	172857096.40	29,520
12/28	10	91838700.35	13,295	6/28	22	155988844.65	15,105
12/28	11	94266461.97	11,146	6/28	23	119486642.61	305
12/28	12	96333992.28	9,572	6/28	24	97136314.30	3,383
12/28	13	94334825.55	11,245	6/29	1	78716163.13	25,281
12/28	14	91644740.54	13,425	6/29	2	66588735.46	38,891
12/28	15	87490561.54	17,291	6/29	3	61008512.92	45,935
12/28	16	86683607.04	17,954	6/29	4	57412153.76	50,721
12/28	17	94493960.71	11,098	6/29	5	64627677.67	41,353
12/28	18	128394455.06	1,866	6/29	6	77175557.10	26,885
12/28	19	135931523.01	6,003	6/29	7	99860057.44	8,395
12/28	20	136046119.56	6,204	6/29	8	127930674.50	127
12/28	21	130823291.66	2,836	6/29	9	151853806.19	4,867
12/28	22	123064488.04	276	6/29	10	180977912.51	23,980
12/28	23	111159726.52	1,141	6/29	11	205720325.06	50,439
12/28	24	98880182.38	7,683	6/29	12	229507897.84	83,984
12/29	1	85718967.00	10,425	6/29	13	241655388.11	103,566
12/29	2	75180560.17	17,960	6/29	14	248634690.14	115,867
12/29	3	71713547.24	20,259	6/29	15	256989143.36	130,940
12/29	4	71000437.26	20,657	6/29	16	256609864.98	130,580
12/29	5	74813415.17	18,289	6/29	17	252558032.83	122,645
12/29	6	83564828.63	11,925	6/29	18	236257865.74	94,770
12/29	7	108474125.58	244	6/29	19	215769341.47	63,770
12/29	8	130145398.06	6,689	6/29	20	189943738.93	32,386
12/29	9	144164117.09	21,472	6/29	21	179146209.84	22,462
12/29	10	144158492.88	21,044	6/29	22	153144441.44	5,558
12/29	11	146807932.40	25,052	6/29	23	119496469.21	979
12/29	12	143643844.83	20,503	6/29	24	97159066.33	9,937

12/29	13	139988767.39	16,195	6/30	1	67972849.97	16,543
12/29	14	138390230.81	14,083	6/30	2	56819452.85	26,454
12/29	15	132535761.89	8,439	6/30	3	51150133.87	31,959
12/29	16	128987886.33	5,774	6/30	4	49151793.77	33,941
12/29	17	132973021.36	8,974	6/30	5	53615958.26	29,556
12/29	18	158797212.64	46,170	6/30	6	60154009.22	23,368
12/29	19	174858744.64	83,761	6/30	7	78315814.67	9,248
12/29	20	171864079.78	75,994	6/30	8	99795846.53	875
12/29	21	165580734.25	60,483	6/30	9	114554003.51	322
12/29	22	154281224.75	37,299	6/30	10	128181146.80	3,746
12/29	23	128798499.96	5,613	6/30	11	140873191.90	9,541
12/29	24	111688845.72	-135	6/30	12	149864956.56	15,922
12/30	1	102614694.63	2,747	6/30	13	158164248.62	22,456
12/30	2	96892104.20	5,416	6/30	14	163922922.17	27,976
12/30	3	93662585.74	7,658	6/30	15	166583380.49	30,493
12/30	4	93328533.61	7,755	6/30	16	168886821.74	32,702
12/30	5	95406343.43	6,387	6/30	17	166492121.57	30,478
12/30	6	102398555.11	2,820	6/30	18	156569269.55	21,196
12/30	7	120609390.72	799	6/30	19	144256939.33	11,841
12/30	8	136924069.82	10,355	6/30	20	131176983.13	4,934
12/30	9	143161996.60	16,802	6/30	21	126769451.56	3,223
12/30	10	147999506.31	23,507	6/30	22	112180450.76	161
12/30	11	145780552.36	20,046	6/30	23	90207455.40	3,598
12/30	12	141135424.55	14,488	6/30	24	73269596.21	12,573
12/30	13	142134279.68	15,899	7/1	1	55130037.59	33,691
12/30	14	137239336.74	10,384	7/1	2	47230748.59	42,370
12/30	15	134807462.48	8,234	7/1	3	43240090.36	46,741
12/30	16	130576312.93	5,020	7/1	4	41587141.44	48,646
12/30	17	135104452.75	8,716	7/1	5	45324316.30	44,552
12/30	18	163695545.48	51,432	7/1	6	53415497.38	35,589
12/30	19	172246566.87	71,346	7/1	7	75068874.45	15,184
12/30	20	174152896.70	76,367	7/1	8	97047988.14	2,735
12/30	21	167830276.64	60,539	7/1	9	107321420.72	525
12/30	22	154365398.35	33,287	7/1	10	116993744.27	218
12/30	23	145100633.82	19,428	7/1	11	126221719.78	1,442
12/30	24	128804334.21	3,998	7/1	12	133917311.81	3,832
12/31	1	105840624.97	183	7/1	13	140072759.99	6,553
12/31	2	98073363.39	1,440	7/1	14	146062102.84	9,522
12/31	3	90961138.35	4,116	7/1	15	149823030.06	12,062
12/31	4	88123236.66	5,430	7/1	16	152397505.46	13,643
12/31	5	90343970.36	4,201	7/1	17	149116613.21	11,519
12/31	6	98765013.46	1,264	7/1	18	145086507.89	9,261
12/31	7	113517755.29	866	7/1	19	135027981.39	4,405
12/31	8	129327596.52	9,172	7/1	20	122557105.78	699
12/31	9	137633305.00	17,902	7/1	21	120333241.41	309
12/31	10	141373051.37	23,041	7/1	22	110244779.02	250

12/31	11	139440953.57	20,435	7/1	23	87302280.38	7,090
12/31	12	136524128.70	16,726	7/1	24	71181723.30	18,138
12/31	13	133564302.57	13,480	7/2	1	53535640.12	37,165
12/31	14	130572384.95	10,251	7/2	2	46806510.59	43,915
12/31	15	126110590.52	6,575	7/2	3	43277029.11	47,520
12/31	16	121390875.07	3,567	7/2	4	42354822.33	48,371
12/31	17	123979062.03	5,338	7/2	5	46613819.64	44,138
12/31	18	145867032.54	29,702	7/2	6	54346561.85	36,295
12/31	19	158329652.03	52,647	7/2	7	66070554.56	25,383
12/31	20	155345417.15	46,427	7/2	8	86356497.39	10,966
12/31	21	147094476.16	31,562	7/2	9	104159132.25	2,983
12/31	22	135461059.25	15,397	7/2	10	119078739.08	293
12/31	23	122456435.46	4,123	7/2	11	133204658.22	396
12/31	24	105967308.34	99	7/2	12	141958992.11	1,955
1/1	1	92171963.03	2,045	7/2	13	152998366.04	5,435
1/1	2	81518475.25	6,609	7/2	14	159901142.15	8,054
1/1	3	74012504.57	10,019	7/2	15	165801440.18	10,978
1/1	4	71810974.61	10,994	7/2	16	171612882.17	14,284
1/1	5	73919454.41	10,095	7/2	17	171159006.22	13,895
1/1	6	81270187.59	6,810	7/2	18	160217996.23	8,129
1/1	7	89858313.79	3,095	7/2	19	147807586.57	3,548
1/1	8	92394791.43	2,147	7/2	20	134180840.13	626
1/1	9	105715175.30	-64	7/2	21	131517542.69	398
1/1	10	110866164.60	603	7/2	22	116994954.06	567
1/1	11	118131270.40	3,212	7/2	23	90253111.14	8,642
1/1	12	117145037.51	2,825	7/2	24	70383865.67	21,764
1/1	13	108515375.88	412	7/3	1	61034255.75	31,002
1/1	14	102116363.78	-71	7/3	2	52453183.88	39,409
1/1	15	96617237.80	851	7/3	3	46923277.37	44,995
1/1	16	93465859.34	1,838	7/3	4	44921299.10	47,208
1/1	17	99615244.36	209	7/3	5	50094842.43	41,749
1/1	18	128472085.02	10,686	7/3	6	57559751.27	34,265
1/1	19	134238265.37	16,860	7/3	7	67777887.37	25,072
1/1	20	125027278.89	7,651	7/3	8	86977888.12	11,085
1/1	21	117449259.68	2,960	7/3	9	109463793.85	1,953
1/1	22	111983387.74	831	7/3	10	125968907.21	-16
1/1	23	104497226.64	146	7/3	11	136641113.95	591
1/1	24	96603535.58	930	7/3	12	147670917.34	3,120
1/2	1	85578345.39	1,505	7/3	13	157324871.86	6,503
1/2	2	79691358.86	3,856	7/3	14	169096495.90	12,046
1/2	3	75843005.27	5,729	7/3	15	171820998.55	13,433
1/2	4	72472924.94	7,857	7/3	16	178235382.00	17,631
1/2	5	72306813.35	7,933	7/3	17	181262116.54	19,761
1/2	6	75765113.51	5,712	7/3	18	170459983.53	12,704
1/2	7	76791143.60	5,113	7/3	19	154337336.81	5,411
1/2	8	81499823.10	3,003	7/3	20	136366009.06	577

1/2	9	86134551.71	1,198	7/3	21	128409978.35	18
1/2	10	93821935.81	122	7/3	22	114417032.54	1,078
1/2	11	97611727.54	220	7/3	23	93541012.80	7,657
1/2	12	100401362.65	751	7/3	24	74302630.24	19,676
1/2	13	98877502.93	513	7/4	1	66719039.27	21,958
1/2	14	97215698.50	324	7/4	2	54099343.14	33,095
1/2	15	94751473.34	142	7/4	3	47680565.37	39,306
1/2	16	94774341.58	3	7/4	4	44926461.27	41,952
1/2	17	99569995.97	690	7/4	5	44168293.34	42,711
1/2	18	118896886.90	12,817	7/4	6	42684338.69	44,170
1/2	19	132125286.67	30,811	7/4	7	49626761.38	37,331
1/2	20	132498047.20	31,608	7/4	8	61372665.77	26,506
1/2	21	125336564.07	20,480	7/4	9	79187836.48	13,247
1/2	22	118536835.63	12,392	7/4	10	99237551.87	3,460
1/2	23	109419978.52	4,601	7/4	11	116247214.76	127
1/2	24	98043533.09	242	7/4	12	129943046.04	608
1/3	1	96460799.60	1,760	7/4	13	141489545.05	2,638
1/3	2	93439617.35	827	7/4	14	156127290.30	8,085
1/3	3	88853934.99	-36	7/4	15	165564422.85	12,863
1/3	4	85890740.88	3	7/4	16	176956052.79	19,968
1/3	5	86103502.42	-123	7/4	17	186555630.31	27,313
1/3	6	90403742.40	127	7/4	18	180079361.97	22,149
1/3	7	96382385.88	1,903	7/4	19	171740441.55	16,377
1/3	8	100748557.07	3,666	7/4	20	157732531.82	8,642
1/3	9	103703095.47	5,530	7/4	21	151373390.71	5,903
1/3	10	111415299.98	12,197	7/4	22	138426414.51	2,053
1/3	11	115647426.47	16,637	7/4	23	108406545.34	1,312
1/3	12	111620414.01	12,192	7/4	24	86560349.63	8,970
1/3	13	109765077.42	10,354	7/5	1	72006541.68	23,282
1/3	14	107298684.34	8,204	7/5	2	58380276.13	35,759
1/3	15	104684715.45	6,348	7/5	3	50681257.17	43,616
1/3	16	102870304.88	5,008	7/5	4	46753361.95	47,783
1/3	17	106091282.05	7,368	7/5	5	45481286.40	49,152
1/3	18	128420327.96	35,523	7/5	6	43734874.47	50,977
1/3	19	146816480.12	75,606	7/5	7	47893906.08	46,543
1/3	20	147293582.66	77,024	7/5	8	59574140.88	34,522
1/3	21	139410755.43	57,653	7/5	9	70236296.53	24,747
1/3	22	128748592.41	36,070	7/5	10	97688203.81	6,662
1/3	23	117191664.19	18,698	7/5	11	120533975.88	584
1/3	24	104190847.26	5,947	7/5	12	136957944.45	450
1/4	1	101449905.07	1,276	7/5	13	150039982.44	3,170
1/4	2	95316021.34	-37	7/5	14	165063218.03	8,655
1/4	3	92380502.48	156	7/5	15	173941945.37	13,516
1/4	4	91955624.88	-36	7/5	16	185553727.50	20,942
1/4	5	93005082.47	82	7/5	17	192247414.48	25,705
1/4	6	97513540.04	325	7/5	18	193053877.31	26,636

1/4	7	100138828.78	917	7/5	19	184301350.33	20,026
1/4	8	102582775.53	1,798	7/5	20	170831480.08	11,750
1/4	9	104034565.15	2,310	7/5	21	162493855.20	7,620
1/4	10	109793389.44	5,739	7/5	22	145167745.50	1,974
1/4	11	107617309.48	4,302	7/5	23	117802067.14	810
1/4	12	107329379.27	4,154	7/5	24	96158974.73	7,605
1/4	13	107706190.53	4,146	7/6	1	76486477.75	30,273
1/4	14	108623138.24	5,080	7/6	2	60328045.84	47,227
1/4	15	106169664.71	3,309	7/6	3	53910738.81	54,787
1/4	16	106249217.77	3,569	7/6	4	49846987.23	59,814
1/4	17	110618470.53	6,236	7/6	5	50843732.38	58,566
1/4	18	140797839.06	48,703	7/6	6	51030210.01	58,392
1/4	19	163264539.98	106,812	7/6	7	60066003.72	47,527
1/4	20	159858727.09	97,001	7/6	8	77193491.31	29,451
1/4	21	151406161.16	73,672	7/6	9	103764113.06	9,759
1/4	22	142215019.96	52,017	7/6	10	133963985.84	465
1/4	23	128580176.29	26,795	7/6	11	162313079.14	3,006
1/4	24	119811227.61	14,970	7/6	12	187545278.58	13,401
1/5	1	111777793.57	22	7/6	13	208459637.93	27,568
1/5	2	106005616.34	494	7/6	14	229026789.72	45,811
1/5	3	104741121.00	989	7/6	15	241472899.10	58,461
1/5	4	106750653.15	568	7/6	16	254963208.43	74,040
1/5	5	106779535.97	411	7/6	17	262067906.56	83,135
1/5	6	112565912.28	-83	7/6	18	252816036.64	71,645
1/5	7	138763317.65	17,856	7/6	19	237468085.39	54,435
1/5	8	170943519.50	82,590	7/6	20	206711018.50	26,273
1/5	9	183428566.29	120,634	7/6	21	196637958.51	19,309
1/5	10	185377571.96	126,922	7/6	22	171818605.37	5,912
1/5	11	180878558.33	112,210	7/6	23	132921291.19	477
1/5	12	172863506.00	87,883	7/6	24	106380771.83	8,464
1/5	13	168513655.91	76,511	7/7	1	93468432.37	23,688
1/5	14	162234226.52	60,782	7/7	2	80181974.11	36,144
1/5	15	153974345.28	42,784	7/7	3	71996306.46	45,254
1/5	16	149428035.05	33,873	7/7	4	68474978.51	49,421
1/5	17	154570063.19	43,941	7/7	5	74629014.75	42,263
1/5	18	185330392.85	126,459	7/7	6	87986190.47	28,506
1/5	19	207434590.66	210,099	7/7	7	109175191.29	12,294
1/5	20	211747611.59	228,708	7/7	8	145887594.74	206
1/5	21	200988584.55	184,052	7/7	9	178206716.54	4,403
1/5	22	179356749.27	107,084	7/7	10	216933287.97	25,532
1/5	23	156418612.35	47,800	7/7	11	253726353.55	59,685
1/5	24	138017185.43	16,874	7/7	12	290717747.05	105,056
1/6	1	138768789.50	840	7/7	13	317651611.80	144,636
1/6	2	130230322.84	5,031	7/7	14	346153462.15	191,343
1/6	3	123283566.40	11,391	7/7	15	367246500.28	229,089
1/6	4	124963838.71	9,511	7/7	16	377807725.82	249,152

1/6	5	129314593.86	5,726	7/7	17	375306773.75	244,243
1/6	6	138753058.35	911	7/7	18	356366435.52	209,737
1/6	7	159550703.90	5,670	7/7	19	329964452.58	163,805
1/6	8	198385025.49	70,314	7/7	20	288113252.39	101,184
1/6	9	211325096.44	106,527	7/7	21	264766500.48	71,643
1/6	10	210209658.50	103,184	7/7	22	225835671.39	32,561
1/6	11	202260519.13	80,736	7/7	23	181735119.46	5,727
1/6	12	194456000.57	61,142	7/7	24	142049398.79	476
1/6	13	188974886.44	48,562	7/8	1	113708461.40	9,498
1/6	14	180465005.26	32,243	7/8	2	95402687.59	21,539
1/6	15	174638299.43	23,014	7/8	3	78180429.01	37,589
1/6	16	172264948.04	19,425	7/8	4	74617637.34	41,479
1/6	17	179315614.29	30,238	7/8	5	84864285.51	30,922
1/6	18	206484194.06	92,653	7/8	6	104686948.91	14,777
1/6	19	223550920.37	147,376	7/8	7	127205141.20	3,636
1/6	20	227423784.16	161,454	7/8	8	165271791.13	1,310
1/6	21	217534915.57	126,755	7/8	9	200784147.26	15,175
1/6	22	194130914.03	60,219	7/8	10	235914910.48	42,003
1/6	23	167300662.39	13,115	7/8	11	279755267.50	91,101
1/6	24	155160767.44	3,046	7/8	12	310343656.18	134,189
1/7	1	131304454.14	206	7/8	13	335715997.00	174,789
1/7	2	124842098.53	2,495	7/8	14	356267978.73	210,826
1/7	3	119123467.40	6,429	7/8	15	363790262.61	224,304
1/7	4	120476510.34	5,399	7/8	16	373849911.72	243,331
1/7	5	122061209.42	4,173	7/8	17	369772413.85	235,847
1/7	6	131809298.05	218	7/8	18	363879257.42	224,715
1/7	7	156709579.01	11,841	7/8	19	334160311.95	172,222
1/7	8	197554641.29	93,455	7/8	20	303104716.22	123,872
1/7	9	205897470.14	118,877	7/8	21	282321175.60	94,692
1/7	10	206674568.75	121,722	7/8	22	234694422.40	40,968
1/7	11	203380571.39	110,751	7/8	23	189793727.32	9,603
1/7	12	194432455.68	84,378	7/8	24	150199948.65	-43
1/7	13	184269468.93	58,998	7/9	1	114344426.26	10,079
1/7	14	178640328.64	46,499	7/9	2	90789679.24	27,185
1/7	15	174552759.27	37,969	7/9	3	78524429.80	39,463
1/7	16	168317077.81	27,189	7/9	4	74896304.86	43,553
1/7	17	171737251.73	32,867	7/9	5	81568384.86	36,193
1/7	18	198116201.30	94,850	7/9	6	97326385.03	21,706
1/7	19	220152679.87	168,844	7/9	7	120306700.73	7,260
1/7	20	227701136.02	198,333	7/9	8	158690211.07	197
1/7	21	217588808.86	159,262	7/9	9	194692435.15	10,635
1/7	22	196225091.54	89,718	7/9	10	224955015.61	30,527
1/7	23	173896075.76	36,813	7/9	11	260498329.35	64,999
1/7	24	160052690.62	15,486	7/9	12	290158967.71	101,767
1/8	1	144625135.36	1,327	7/9	13	312436683.76	133,387
1/8	2	132847037.33	9,438	7/9	14	329015991.10	159,540

1/8	3	127202571.40	15,793	7/9	15	341962114.67	180,841
1/8	4	124103982.55	20,184	7/9	16	343900004.20	184,295
1/8	5	128687685.18	13,923	7/9	17	337174482.73	173,273
1/8	6	145836547.61	871	7/9	18	314834617.40	137,336
1/8	7	162543670.66	2,939	7/9	19	291369468.22	103,185
1/8	8	184288765.09	25,950	7/9	20	256120383.22	60,130
1/8	9	200592344.63	57,196	7/9	21	240393254.82	44,271
1/8	10	202873029.73	62,836	7/9	22	208707292.06	18,846
1/8	11	198629316.92	52,843	7/9	23	165264034.08	970
1/8	12	193998551.37	42,969	7/9	24	130225748.95	3,442
1/8	13	191203762.69	37,697	7/10	1	95855210.20	10,585
1/8	14	188500324.34	33,062	7/10	2	77747335.64	23,183
1/8	15	181652072.29	21,781	7/10	3	68820705.33	31,133
1/8	16	177211224.84	15,804	7/10	4	65072248.12	34,739
1/8	17	182025999.85	22,563	7/10	5	69735727.36	30,253
1/8	18	210797806.52	83,111	7/10	6	81168328.71	20,272
1/8	19	228938501.92	138,676	7/10	7	96198373.10	10,265
1/8	20	233195091.49	153,563	7/10	8	128773220.37	305
1/8	21	224286483.79	122,952	7/10	9	153421452.54	2,359
1/8	22	205263888.20	68,371	7/10	10	176697889.52	11,652
1/8	23	182517932.85	23,332	7/10	11	200370375.32	27,364
1/8	24	167497951.66	6,217	7/10	12	223070174.66	47,733
1/9	1	141030212.55	1,472	7/10	13	238470578.57	64,206
1/9	2	132433222.47	177	7/10	14	250954255.35	78,952
1/9	3	123260327.03	2,670	7/10	15	255684672.93	85,030
1/9	4	121788896.29	3,636	7/10	16	258609863.83	88,588
1/9	5	125161848.76	1,730	7/10	17	254099387.17	82,980
1/9	6	141134039.82	1,334	7/10	18	239536909.19	65,150
1/9	7	163494564.33	21,725	7/10	19	212228311.50	37,223
1/9	8	186570019.73	67,363	7/10	20	180895942.48	13,921
1/9	9	195526401.68	91,279	7/10	21	168815134.09	7,996
1/9	10	196362058.97	93,339	7/10	22	146282225.39	1,147
1/9	11	193608807.85	85,857	7/10	23	119174337.58	1,452
1/9	12	189683201.97	74,955	7/10	24	95896091.52	10,615
1/9	13	180720500.60	53,531	7/11	1	73899029.45	16,696
1/9	14	172350479.03	36,399	7/11	2	55850187.35	31,500
1/9	15	164477284.08	23,291	7/11	3	47443586.64	39,458
1/9	16	161921384.91	19,744	7/11	4	43073704.95	43,757
1/9	17	162634899.78	20,588	7/11	5	43923108.24	42,827
1/9	18	179907789.07	51,646	7/11	6	42986272.63	43,838
1/9	19	197651684.37	97,333	7/11	7	48382520.17	38,627
1/9	20	200084483.14	104,995	7/11	8	68912807.97	20,298
1/9	21	187521489.65	69,612	7/11	9	95709607.04	4,845
1/9	22	170356100.53	32,819	7/11	10	122367694.92	1
1/9	23	149622189.23	6,228	7/11	11	144983418.61	3,680
1/9	24	144368805.07	2,661	7/11	12	160207376.58	9,917

1/10	1	131613645.40	6,322	7/11	13	176736963.05	19,680
1/10	2	124984771.41	2,411	7/11	14	187965340.75	28,170
1/10	3	121518885.78	804	7/11	15	200407803.52	39,134
1/10	4	120982017.17	875	7/11	16	211900645.11	50,869
1/10	5	121609048.67	1,021	7/11	17	211491806.15	50,150
1/10	6	126945779.40	3,141	7/11	18	210917057.53	49,654
1/10	7	135549812.26	9,693	7/11	19	195354853.12	34,620
1/10	8	144826767.49	20,822	7/11	20	175655789.64	19,071
1/10	9	156569269.55	40,567	7/11	21	161987129.69	11,078
1/10	10	164145122.76	56,681	7/11	22	143333451.36	3,349
1/10	11	167689921.22	64,724	7/11	23	109439002.05	1,135
1/10	12	163164602.11	54,314	7/11	24	90424342.73	7,064
1/10	13	153024050.42	33,917	7/12	1	68054715.31	25,805
1/10	14	147882757.64	25,326	7/12	2	53868506.60	39,321
1/10	15	144571588.80	20,292	7/12	3	47857666.04	45,583
1/10	16	141340473.24	16,155	7/12	4	42975389.35	50,656
1/10	17	147097329.37	24,122	7/12	5	42715078.10	51,057
1/10	18	170456810.86	71,580	7/12	6	41571345.19	52,167
1/10	19	190789682.98	132,308	7/12	7	43778972.15	49,942
1/10	20	193025250.06	140,116	7/12	8	58727181.34	34,447
1/10	21	184910374.94	113,050	7/12	9	81207852.06	15,548
1/10	22	171373892.21	74,219	7/12	10	107017608.50	2,893
1/10	23	152180296.43	32,191	7/12	11	129313943.75	25
1/10	24	138038307.56	12,342	7/12	12	147465726.85	2,642
1/11	1	141678994.67	6,889	7/12	13	155456728.24	5,273
1/11	2	128817948.23	259	7/12	14	168540403.30	11,028
1/11	3	126193611.47	180	7/12	15	179105109.64	17,030
1/11	4	122061833.06	163	7/12	16	194445535.92	28,512
1/11	5	124538121.71	151	7/12	17	198910165.19	31,858
1/11	6	128011974.77	274	7/12	18	195081125.32	28,901
1/11	7	137802008.66	4,233	7/12	19	181497677.23	18,607
1/11	8	135592186.40	2,829	7/12	20	166255951.69	9,937
1/11	9	142470683.03	7,398	7/12	21	155985124.21	5,427
1/11	10	146354705.00	11,423	7/12	22	138574633.91	867
1/11	11	141029520.56	6,514	7/12	23	111010545.86	1,982
1/11	12	138483093.24	4,679	7/12	24	89371550.12	10,571
1/11	13	136966752.84	3,459	7/13	1	75849203.68	21,692
1/11	14	135705230.76	3,006	7/13	2	63142031.80	33,062
1/11	15	131119190.61	1,080	7/13	3	56855422.58	39,419
1/11	16	131111967.84	1,116	7/13	4	56565255.65	39,733
1/11	17	130983975.27	1,060	7/13	5	62633296.64	33,585
1/11	18	159179677.34	28,683	7/13	6	76759432.00	21,074
1/11	19	186338193.46	89,561	7/13	7	101153256.19	6,172
1/11	20	193162341.58	110,159	7/13	8	130441500.97	-89
1/11	21	187928749.74	94,295	7/13	9	160055722.65	5,734
1/11	22	174087659.26	58,195	7/13	10	190249168.83	22,630

1/11	23	159874631.79	29,745	7/13	11	215076511.54	43,982
1/11	24	143376163.07	8,208	7/13	12	234651488.32	64,691
1/12	1	121266685.75	188	7/13	13	248678410.28	81,378
1/12	2	106870751.99	7,769	7/13	14	263216742.13	100,794
1/12	3	100883327.00	13,699	7/13	15	269676952.74	109,879
1/12	4	101077558.33	13,360	7/13	16	273208412.25	115,082
1/12	5	105232380.76	9,253	7/13	17	267865941.84	107,551
1/12	6	118924427.40	718	7/13	18	257417914.66	92,833
1/12	7	142893564.68	7,911	7/13	19	244986033.72	77,100
1/12	8	173980579.17	58,013	7/13	20	219665783.64	48,275
1/12	9	186117559.18	89,871	7/13	21	206146567.25	35,521
1/12	10	186335656.36	90,123	7/13	22	178673967.31	14,916
1/12	11	186422777.54	90,352	7/13	23	136486276.09	188
1/12	12	182745493.83	80,010	7/13	24	104767935.27	4,596
1/12	13	174316470.32	59,267	7/14	1	82105248.92	37,585
1/12	14	168366599.92	46,009	7/14	2	65990014.59	56,424
1/12	15	163050112.11	35,333	7/14	3	58557953.69	66,313
1/12	16	156248689.05	23,914	7/14	4	57445131.00	67,762
1/12	17	159065698.46	28,574	7/14	5	62578538.12	60,967
1/12	18	177774680.30	67,254	7/14	6	79617517.89	40,217
1/12	19	199201059.82	130,573	7/14	7	100294665.49	20,675
1/12	20	205903831.24	153,649	7/14	8	131324174.11	3,737
1/12	21	193405460.75	111,663	7/14	9	152066296.17	107
1/12	22	177345030.93	66,344	7/14	10	186428699.46	6,174
1/12	23	152509488.09	18,864	7/14	11	213214431.39	20,590
1/12	24	127963577.28	215	7/14	12	241481052.91	43,464
1/13	1	117357084.63	8,387	7/14	13	265188217.91	67,713
1/13	2	108420860.66	18,470	7/14	14	279610253.62	85,091
1/13	3	104251514.63	24,527	7/14	15	289070412.59	97,551
1/13	4	102803603.76	26,859	7/14	16	295709742.55	106,070
1/13	5	106653851.81	20,954	7/14	17	296430925.96	106,997
1/13	6	121020441.00	5,192	7/14	18	278086360.46	83,453
1/13	7	142675730.73	1,186	7/14	19	258293049.46	60,486
1/13	8	176881100.48	41,633	7/14	20	228840433.11	32,067
1/13	9	178196889.15	44,213	7/14	21	217900065.11	23,890
1/13	10	177234880.38	42,688	7/14	22	185897113.06	6,080
1/13	11	175440289.75	38,695	7/14	23	154913332.91	155
1/13	12	172849885.81	33,979	7/14	24	122038136.19	7,320
1/13	13	164829283.79	20,979	7/15	1	91931722.90	41,006
1/13	14	156496165.39	11,019	7/15	2	72167457.43	65,915
1/13	15	156507353.21	10,967	7/15	3	65954375.21	74,760
1/13	16	149983553.07	5,174	7/15	4	65559269.60	75,442
1/13	17	153589156.76	8,314	7/15	5	72550937.86	65,384
1/13	18	168914399.74	27,529	7/15	6	88133102.02	45,314
1/13	19	186597107.87	62,935	7/15	7	111896079.49	21,889
1/13	20	192344303.98	77,369	7/15	8	150101493.38	2,278

1/13	21	182150765.42	52,663	7/15	9	184696001.35	1,700
1/13	22	172596050.75	33,611	7/15	10	227783216.32	20,008
1/13	23	159190247.90	14,021	7/15	11	267380832.26	53,021
1/13	24	141498562.33	773	7/15	12	299866407.16	89,901
1/14	1	115379507.65	760	7/15	13	333353564.58	136,348
1/14	2	102339764.79	8,164	7/15	14	362686662.40	182,615
1/14	3	96296657.00	14,057	7/15	15	371832171.25	198,597
1/14	4	94531829.09	16,067	7/15	16	383060103.13	217,733
1/14	5	99745685.59	10,475	7/15	17	377190499.75	207,704
1/14	6	114425961.84	1,019	7/15	18	364177846.78	185,182
1/14	7	138640242.07	7,777	7/15	19	336555332.12	141,269
1/14	8	166174166.94	49,399	7/15	20	300727349.23	91,424
1/14	9	161168223.70	39,235	7/15	21	281607806.17	68,542
1/14	10	156158564.47	29,965	7/15	22	251397787.30	37,985
1/14	11	148858891.09	19,226	7/15	23	191407165.06	2,966
1/14	12	146121015.48	15,403	7/15	24	146755941.48	3,053
1/14	13	134896577.17	5,000	7/16	1	118224492.27	13,266
1/14	14	132028915.09	2,907	7/16	2	95891373.81	30,771
1/14	15	128622913.04	1,374	7/16	3	81810314.45	45,882
1/14	16	124228362.08	413	7/16	4	77998671.17	50,467
1/14	17	125787184.53	542	7/16	5	83949054.14	43,505
1/14	18	136194524.21	5,813	7/16	6	104556348.76	23,177
1/14	19	154884459.39	27,933	7/16	7	128556222.28	7,583
1/14	20	161812107.64	40,248	7/16	8	167434519.00	186
1/14	21	155259375.92	28,517	7/16	9	211434373.23	14,468
1/14	22	142618519.21	11,332	7/16	10	251333791.63	44,505
1/14	23	127841029.25	1,128	7/16	11	297017301.66	95,623
1/14	24	113848379.99	1,122	7/16	12	343602971.10	164,213
1/15	1	104945145.30	1,950	7/16	13	378153915.12	223,660
1/15	2	94866374.39	8,197	7/16	14	410093025.33	284,259
1/15	3	87823709.02	15,089	7/16	15	422271923.33	309,014
1/15	4	87844376.47	14,977	7/16	16	430278991.61	325,417
1/15	5	89165935.58	13,613	7/16	17	428991933.18	323,005
1/15	6	107602501.11	1,007	7/16	18	410113918.85	284,195
1/15	7	120639689.84	1,009	7/16	19	374118048.08	216,210
1/15	8	151387226.50	32,999	7/16	20	326530553.80	137,118
1/15	9	148204514.03	27,646	7/16	21	305913505.62	107,844
1/15	10	144716761.26	22,316	7/16	22	259308698.47	52,186
1/15	11	141872796.66	18,653	7/16	23	211026182.37	13,998
1/15	12	135127937.06	10,686	7/16	24	162173766.02	13

Table 6. Hourly Demand Coefficients and Deadweight Loss