



the tampa bay economy

MESSAGE FROM THE DEAN

Dear Tampa Bay Friends,

It is my great pleasure to bring to you the inaugural issue of *The Tampa Bay Economy* created by my colleagues in the economics and finance departments of the



F. Frank Ghannadian, Ph.D.

John H. Sykes College of Business. This economic newsletter is intended to fill a gap that exists in our college's service to the community surrounding The University of Tampa. The mission of *The Tampa Bay Economy* is to provide the local

community a reasoned analysis of current economic data and events that directly concern the Tampa Bay economy.

Looking at global markets, the International Monetary Fund estimates that the world economy will contract this year for the first time since World War II. Even though this historic global contraction is estimated to be between 1.2 to 1.5 percent, it is smaller than the declines projected for the U.S., Europe, and Russia where declines are projected to range between 3 to 6 percent. Since May of 2008, the dollar has lost 5 percent of its value compared to the Japanese Yen but it has gained about 16 percent against the Euro and about 33 percent against the British pound. Although these trends seem to be slowing, they demonstrate how the world economy has been affected by the woes of the U.S.

There is no doubt that with the current unemployment rates, the local and national economy is suffering a recession. The effect of credit constraints due to the financial crisis (see related article), major housing

corrections, and reliance on household borrowing to support consumer purchases have been highly publicized. As Washington struggles to put the U.S. economy back on track with fiscal stimulus provided by the Obama administration and monetary stimulus by the Federal Reserve, the early signs show that at least Wall Street is beginning to rebound. Construction spending is rising nationally and indexes of home sales are moving in the right direction. However, only time will tell us whether or not the growing optimism in the marketplace is real.

We do have our unique economic problems here in Tampa Bay and we are not immune to the dynamics of the U.S. or the world economy. It is my hope that this publication will help better inform the neighbors of The University of Tampa and the citizens of Tampa Bay about the economy that surrounds us. 📌

THE FINANCIAL CRISIS OF 2008-2009

by *Brian T. Kench, Ph.D.*
and *John R. Stinespring, Ph.D.*

In the fall of 2008, a fog of fear rolled into the global financial marketplace. In the darkest hours, plummeting asset values of the largest financial institutions caused them to hoard reserves and sell distressed assets at fire sale prices to maintain capital requirements. Financial institutions became so distrustful of each other that lending among them, over night, nearly came to a grinding halt between September 15th (the bankruptcy of Lehman Brothers) and October 14th (the initiation of the re-capitalization plan by the U.S. Treasury) of 2008. The situation was so dire that U.S. government

officials thought a systemic failure of the financial system was imminent.

Although collapse of the financial system was forestalled, it did not take long for the business and consumer sectors to begin to feel the effects of the financial market crisis. Employees have become so fearful of losing their jobs that they've slowed spending and increased saving. For example, the personal saving rate changed from 0 percent in April of 2008 to 5.7 percent in April of 2009. Because consumption makes up over 70 percent of real gross domestic product, this behavioral shift has contributed to the 5.7 percent decline in the U.S. gross domestic product in the 4th quarter of 2008 and the 6.1 percent decline in

the 1st quarter of 2009. Yet despite this dreary economic news, winds are changing. Leading economic indicators are hinting that the fog of

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TAMPA BAY ECONOMIC ANALYSIS

by Brian T. Kench, Ph.D.

The Tampa-St. Petersburg-Clearwater Metropolitan Statistical Area (hereafter, TSC-MSA) economy shows signs of further slowing as it continues to adjust to declining home values, the international financial crisis, slowing national output, and slowing rates of employment.

In the first third of 2009, non-farm payroll jobs in the TSC-MSA decreased by 8,100 or 0.7 percent. This percentage decrease is 1.75 times the decrease that the state of Florida experienced. The nation experienced no change in non-farm payroll jobs in the first third.

In the TSC-MSA, job losses in the first third were greatest in the goods producing sector (6,800 jobs lost), the professional and business services sector (6,600 jobs lost), and the construction sector (4,400 jobs lost). Job gains were greatest in the leisure and hospitality sector (7,700 jobs created) and the education and health services sector (1,500 jobs created). Non-farm payroll jobs continued to decrease, in the TSC-MSA, for 12 months after the 1990-91 recession and 30 months after the 2001-03 recession.

The twelve month percent change in non-farm payroll jobs continued to decrease, in the TSC-MSA, for one year after the 1990-91 recession and 2.5 years after the 2001-03 recession.

The unemployment rate in TSC-MSA was 10.1 percent in April of 2009, which is higher than the national unemployment rate



by 1.2 percent. The unemployment rate in Hillsborough County was 9.5 percent, which is 0.6 percent below the unemployment rate for the entire MSA. We expect the unemployment rate to stabilize in this range as the national economy begins to approach its trough.

The FHFA housing price index (HPI) for the TSC-MSA has increased 2.3 percent in the first quarter of 2009. The TSC-MSA HPI has declined 21.8 percent from its peak in the fourth quarter of 2006; the HPI for the state of Florida has declined 23.3 percent from its peak in the fourth quarter of 2006; and the national HPI has decreased 3.8 percent from its peak in the second quarter of 2007. We expect a stabilization of these indexes over the coming quarters.

Overall, the TSC-MSA economy continued to slow in the first third of 2009. Our 2009-10 forecast signals a decrease in the rate of the slowdown and we expect the TSC-MSA to reach the trough of its current business cycle in 2010. 📌

Tampa – St. Petersburg – Clearwater MSA

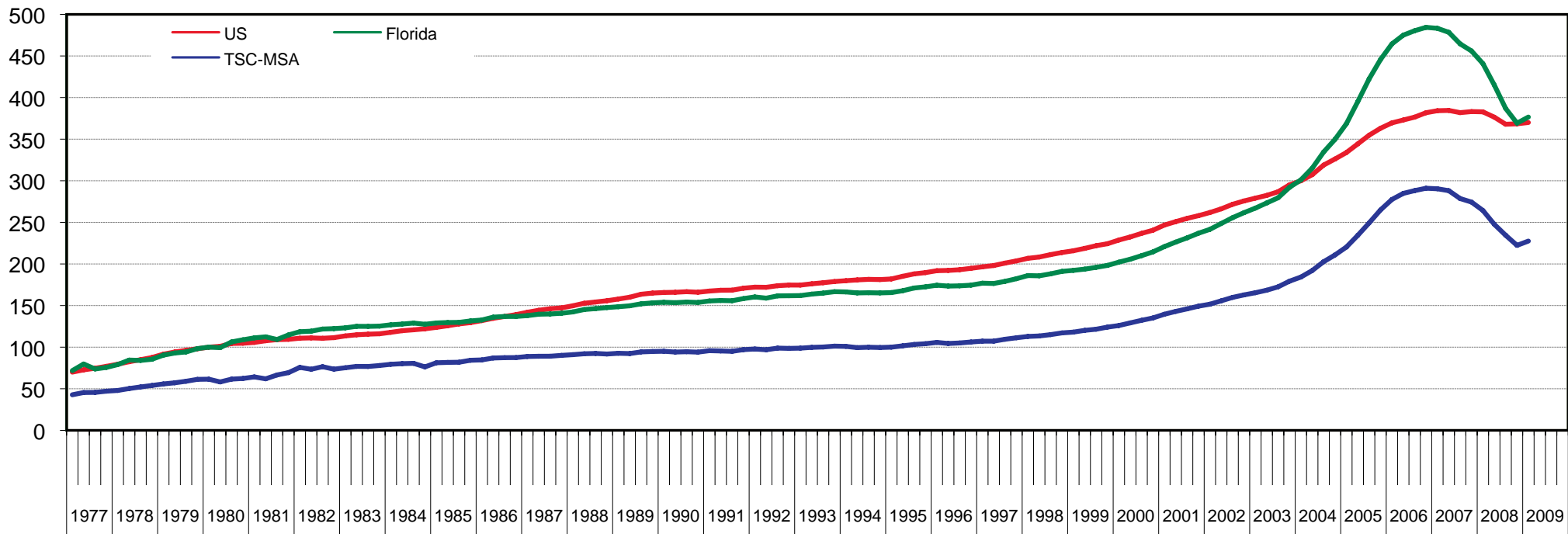
Non-Farm Payroll Jobs

12 month percent change

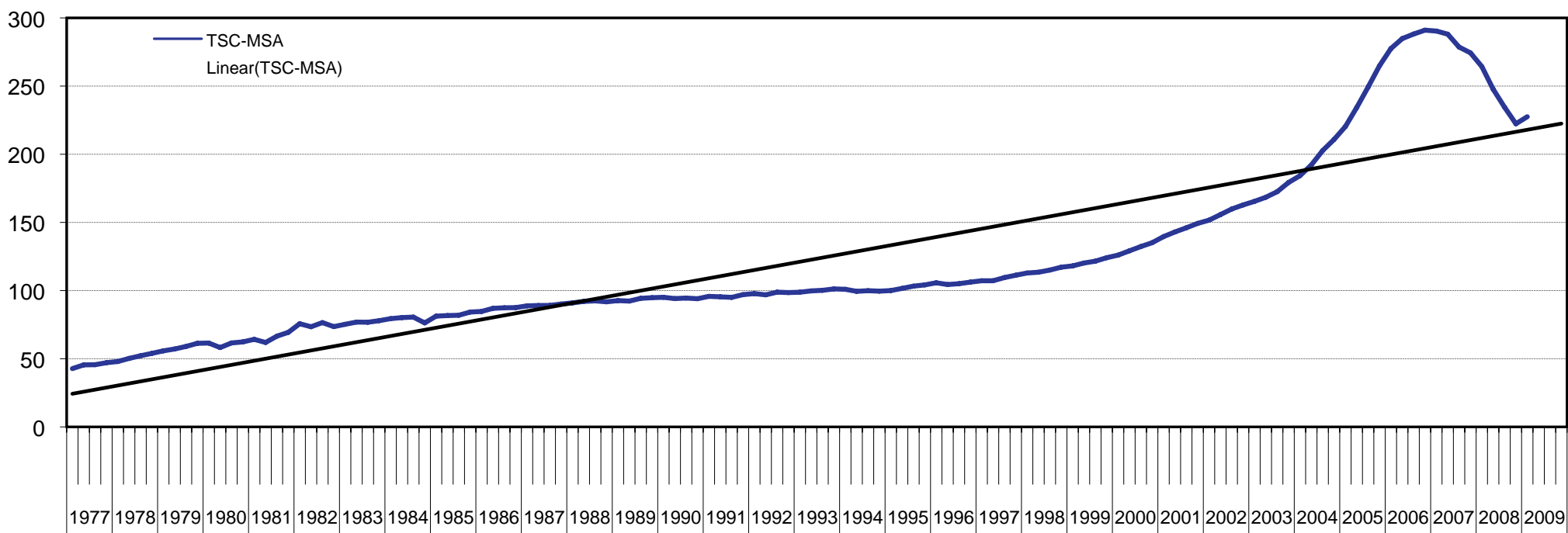
Source: US Department of Labor

Industry	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Payroll Employment	4.4	4	1.6	0.2	-2.6	-4.6
Goods Producing	4.8	5.4	6	-4.2	-8.8	-14.4
Constuction	9.7	10.8	9.4	-5.5	-12.2	-19.6
Manufacturing	0.3	0.1	1.8	-2.4	-5	-8.8
Professional and Business Services	14.5	8.3	0.7	-0.5	-4.7	-8.3
Financial Services	2	2.9	4.8	-0.4	-0.5	-0.1
Leisure and Hospitality	3.2	3.3	1.6	1.6	-2.4	0.1
Education and Health Services	3.5	2.2	1.6	4.6	3.5	1.5

FHFA Housing Price Index: US, FL & TSC-MSA*

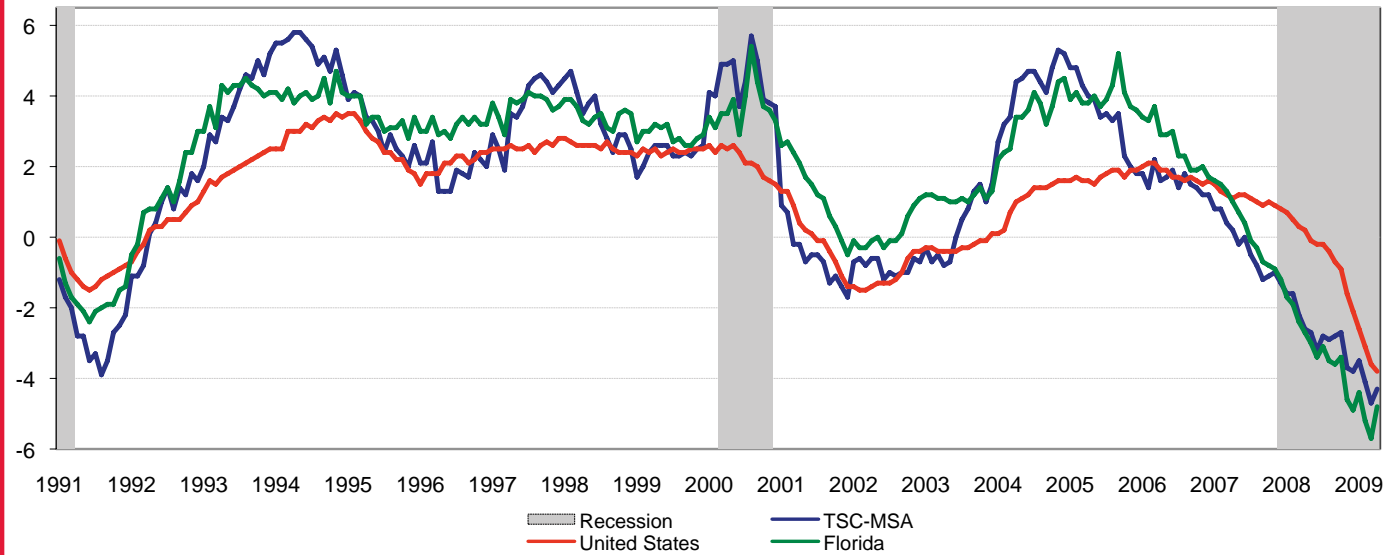


FHFA Housing Price Index: TSC-MSA*



* The Federal Housing Finance Agency's Housing Price Index (HPI) is a broad measure of the movement of single-family house prices. The HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or re-financings on the same properties. The index is based on transactions involving conforming, conventional mortgages purchased or securitized by Fannie Mae or Freddie Mac.

Nonfarm Payroll Jobs (12-month percent change, not seasonally adjusted)
Source: US Department of Labor



TAMPA BAY'S WATER PROBLEM

by Robert S. Beekman, Ph.D.
and Brian T. Kench, Ph.D.

A drought has engulfed the Tampa Bay area. At current water prices, Tampa Bay residents demand more water than the Southwest Florida Water Management District (hereafter, Swiftmud) can supply. In an effort to reduce the demand for water, Swiftmud, local counties, and the City of Tampa have imposed draconian water restrictions or outright bans on many water related activities.

One example is the ban on the operation of outdoor fountains. What could possibly be wrong with banning such a frivolous use of water during severe drought? Consider the following exchange reported in the *St. Petersburg Times* on April 3, 2009. An official from Swiftmud received a question from someone with a backyard pond stocked with koi, the colorful Japanese carp. The pond's fountain is keeping the fish alive, the owner said. Will Swiftmud save water by killing koi? The Swiftmud official said that, so far, no answer had surfaced.

The area's water restrictions and bans

have forced local government agencies to allocate scarce resources to field questions about kiddie pools, bird baths, Slip-N-Slides, the life and death of koi, and others. Many more resources are used to educate consumers, to enforce new rules, and to punish cheaters. All the hours spent engaging in such matters come at a high opportunity cost for the Tampa Bay area. However, throughout the long history of government, when a ban or restriction is imposed, such craziness often results.

It doesn't have to be this hard. The price mechanism does a fine job of allocating other scarce economic resources. For example, the markets for economics professors, gasoline, milk, and tickets to amusement parks operate efficiently by allocating scarce resources to the individuals or businesses with the highest valued use of the good or service. Allowing the market to allocate the supply of water in Tampa Bay would work too – if we let it.

Swiftmud investigated the relationship between prices and water use in a 2005 study titled "Florida Water Rates Evaluation of Single-Family Homes." The Swiftmud study



finds that water use will decrease as the price of water increases. Thus, we do not need to resort to inefficient bureaucratic mechanisms to allocate water. We can let the price system do the job of allocating water efficiently. A better price signal will give consumers the individual freedom to decide on the life or death of their koi, on the greenness of their lawn, or the composition of their landscape.

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The Financial Crisis of 2008-2009

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fear in the financial sector might be lifting.

A curious question remains, however: what caused the fog to roll across financial markets? We believe that asymmetric information is part of the answer. Financial markets arise out of asymmetric information. Unlike product markets (automobiles or burgers, for example), financial markets facilitate the exchange of guarantees, not goods. These guarantees are promises a borrower makes to repay a lender. Information is asymmetric because the borrower has much greater knowledge about his ability to repay than does the lender. The greater the asymmetric information, the higher the degree of trust required among participants. Banks, for example, exist to assume the risk of asymmetric information by specializing in assessing loan risk and serving as intermediaries between borrowers and lenders. Banks profit from the difference between the interest rates they charge borrowers and the rates they pay depositors.

But banking is a tricky business. Most bank assets (loans and securities) have long-term maturities while their liabilities (deposits) can be withdrawn at a moment's notice. Because banks and their depositors assume this major liquidity risk, banks are required to meet regulations on the amount of reserves held against their deposits and the capital that must be held against their assets. For example, the reserve requirement in the U.S. is 10 percent, in most cases. These rules provide a cushion for banks against potential losses in the value of their assets. For many years, these strict regulations and long-proven methods of risk assessment made banks particularly adept at assessing loans and minimizing asymmetric information.

Recent financial innovations changed all that. Instead of banks holding loans on their balance sheets, they began to package them into securities to be sold to off-balance sheet financial entities such as Structured Investment Vehicles (SIVs). SIVs profit from these securities – typically, Collateralized Debt Obligations, CDOs – by slicing them into different risk-based tranches that are sold off to other investors. Because many of



In the fall of 2008, a fog of fear rolled into the global financial marketplace.

these investors are other banks themselves, the credit risk actually remains within the banking sector.

Though still affiliated with the originating banks, SIVs avoid regulations because they fund their purchases with short-term debt, such as asset-backed commercial paper, rather than funding their purchases with deposits. Though the securities in the SIVs often consist of subprime mortgages, the affiliated banks typically provided credit lines to the SIVs to ensure a AAA credit rating. Because banks have zero capital requirements for providing credit lines, SIVs enable banks to originate more loans than what would be possible under traditional banking rules. Within this new form of economic organization, asymmetric information increases significantly because the credit risk of the loans actually remains with the bank, but it is fully obscured by the process of securitization.

Assets of SIVs and other entities in the so-called shadow banking system totaled approximately \$10.5 trillion in early 2007. However, assets in the traditional banking sector totaled about \$10 trillion. Lehman Brothers, which failed on September 15th of 2008, was a major participant in the shadow banking system with exposure to at least \$2.6 billion in SIVs by December 2007. When Lehman failed, fear of these off-balance sheet vehicles spiked, trust among banks evaporated, and a classic run on the shadow banking sector ensued.

Applying a lesson learned from the financial crisis of 1907, the U.S. Treasury used \$250 billion to recapitalize commercial banks

to restore trust among banks. The program worked in two steps. First, on October 14, 2008, the Treasury injected \$125 billion into the largest nine banks to bolster their balance sheets. Second, the Treasury required other banks to complete a rigorous application process for additional funding. Those banks that received additional funds gained a de facto seal of approval by the Treasury as a sound bank. Banks that did not receive funds were asked to withdraw their application. Through this program, interbank trust was regained causing interbank borrowing costs to fall. For example, the federal funds rate – the rate banks charge each other overnight – had spiked 800 basis points beyond the target rate set by the Federal Reserve (the Fed) on September 30, 2008, but it quickly moved towards the Fed's target rate on October 14, 2008 and it has remained near there since that date.

It seems that actions taken by the U.S. Treasury and the Fed last fall might have averted a financial market collapse, as several promising signs have emerged. One example is the April Fed survey of loan officers, which finds that a smaller number of banks were tightening loan standards compared with a few months ago, with the biggest changes in the commercial lending sector. However, with the approximately \$10.5 trillion shadow banking system virtually wiped out, it will take a long while for the traditional banking sector to offer a similar level of liquidity to the global financial marketplace. The fog of fear may be lifting, but we believe the outlook will remain cloudy for some time to come. 🍷

Tampa Bay's Water Problem

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Along the way, local governments can increase their coffers by charging heavy users higher prices.

In crafting an effective policy to address the water shortage in Tampa Bay, it is useful to think about two different kinds of residential water use: indoor and outdoor. Inside our homes we use water for cooking, bathing, laundry and flushing toilets. For the most part, indoor water use does not vary greatly across households. In fact, the lowest rate tier under the existing water policy of the City of Tampa is a proxy for likely indoor water use. This tier allows residents to use up to 3,740 gallons each month. It costs \$6.75 for this first 3,740 gallons of water.

Residential outdoor water use includes washing cars and boats, irrigating lawns, filling swimming pools and decorative fountains, children's water toys, and life support for koi ponds. Of course, outdoor water use does vary greatly across households.

Our proposal, at its most basic level, is to sharply raise the price of residential water above the lowest tier to discourage outdoor water consumption. Let us address three potential issues with a market-based solution to outdoor water consumption.

- In these tough economic times it is unpalatable to increase monthly utility bills. While our proposal increases the price of

using a gallon of water, it does not require that customers continue to use as many gallons. Customers would have the option to conserve in order to avoid higher bills. What is important is that the individual customer would have the freedom to decide the best method to conserve water at their own home. For example, a customer might decide it is preferable to install a water saving showerhead, rather than switch off the life support fountain for their koi. From a community-wide perspective, a gallon of water saved is a gallon saved regardless where the conservation comes from.

- Some consumers will choose not to conserve water and will instead simply pay more for the same number of gallons. Interestingly, the Swiftmud study both supports and refutes this claim. Overall, the study suggests that customers are indeed sensitive to water rates, so residential water use would diminish if upper tier water rates are increased. Therefore, the price signal would be effective. However, the study also reports that the wealthiest customers are less sensitive to price changes. Simply put, they can afford to maintain their lush and thirsty landscapes, fill their pools, and run their fountains. The higher water bill would be a minor part of their monthly expenses so we would expect insignificant usage reductions for this group. A silver lining is that even if this high outdoor water use sub-group does not conserve, they



are making a willing choice to provide extra revenue to cash-strapped municipal water authorities. Perhaps the funds could be used to repair the cracked reservoir or subsidize the desalination plant.

- Higher water prices will be a significant burden for the poorest households. Lower income households generally have smaller homes, and are far less likely to have pools and sprinkler systems, much less lawns. A majority of their water use occurs indoors. They are satisfying basic needs and have few options to conserve water in response to higher prices. The Swiftmud study predicts they will not conserve much because they are mainly indoor water users. As long as the lowest tier prices are not changed, lower income households would not be significantly impacted by the increased upper tier water prices.

Rather than prohibit specific uses of water for all households, we suggest that in times of drought, the water authorities temporarily institute a significant increase in upper tier water rates. This avoids an undue burden on lower income households, yet it encourages new water conserving behavior among the majority of households. Expensive water encourages consumers to freely choose how to conserve, by fixing leaky toilets, for example, rather than by having government bureaucrats perform the impossible task of deciding what types of water use should be restricted and whether the koi shall live or die. 🍷



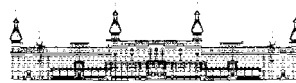
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