Payden&Rygel

FIRST QUARTER 2011

POINT of VIEW

OUR PERSPECTIVE ON ISSUES AFFECTING GLOBAL FINANCIAL MARKETS

Bubble Wrap: *From Tulips to Treasuries?*

In the investment world, describing a statistical anomaly or unabated trend as a "bubble" has become all too common. In the last 10 years alone we have encountered a NASDAQ tech bubble, a housing bubble, a variety of commodity price bubbles and even a Beanie Baby bubble. Now market observers point to the historically low yields on US Treasuries and over $500 billion in new money finding its way into bond mutual funds in 2009 and 2010 as evidence of another bubble poised to pop.

Verification of such a bubble is important. Low, sustainable Treasury yields do not pose a threat by themselves, but a rapid rise in interest rates would hurt both Treasury investors and economic growth. This article investigates the putative bond bubble in the context of economic history and behavioral finance and finds that the low level of interest rates is justified given the current economic backdrop.

WHAT IS A BUBBLE?

Charles Kindleberger, author of *Manias, Panics and Crashes: A History of Financial Crises*, defined a bubble this way:

> A bubble may be defined loosely as a sharp rise in the price of an asset…in a continuous process, with the initial rise generating expectations of further rises and attracting new buyers – generally speculators interested in profits from trading in the asset rather than its use or earnings capacity.[1]

Bubbles appear all around us. The Tulip Mania bubble of 1637 (in rare tulip bulbs) and British South Sea bubble of 1720 (in stocks) are some of our earliest documented financial bubbles. The still-smarting housing bubble in the United States serves as our most recent example.

Bubbles originate in a variety of ways, expanding to varying sizes before inevitably bursting, but there appears to be a common fuel: excess money and credit.[3]

A surge of money entering Amsterdam via Spain from gold and silver imports from the "New World" boosted the Dutch money supply in the 1630s and provided the backdrop for tulip speculation. In the 2000s, private mortgage market credit fueled a housing bubble in the United States. In Kindleberger's words, "Speculative manias gather speed through the expansion of money and credit or perhaps, in some cases, get started *because of* an initial expansion of money and credit" (Italics ours).

> **"THE EXISTENCE OF A BUBBLE OFTEN IS ONLY CONFIRMED BY ITS BURSTING"**

Simply put, bubbles often occur when too much money is chasing too few assets, causing both good assets and bad assets to appreciate to an unsustainable level. Unfortunately, bubbles are often only detected in the latest stages of expansion, when prices tend to accelerate away from any metric of fair value and in their bursting. Former Federal Reserve Chairman Alan Greenspan explains the particular challenge of forestalling a bubble's collapse:

> As events evolved, we recognized that, despite our suspicions, it was very difficult to definitively identify a bubble until after the fact — that is, when its bursting confirmed its existence. Moreover, it was far from obvious that bubbles, even if identified early, could be pre-empted short of the central bank inducing a substantial contraction in economic activity — the very outcome we would be seeking to avoid.

In short, investors may thoughtfully speculate, but the existence of a bubble often is only confirmed by its bursting.

DID YOU KNOW?

TULIP MANIA

The tulip was introduced in Western Europe in the mid 1500s. The first bulbs were imported from Constantinople as highly-prized goods for the wealthy elite in Germany and Holland, particularly the scarce, more exotic types. Soon the desire spread to the lower and middle classes, and by 1634 the Dutch fervor to obtain tulips grew to such an extent that much of the population joined in the tulip trade. The special nature of tulips ensured that many different varieties appeared, and traders invested fortunes in buying roots and cultivating tulips. Rare species of tulips began trading on stock exchanges in Amsterdam. As Dutch tulip traders and speculators became rich, confidence grew that demand for tulips would continue forever. Money poured in from foreign markets to speculate on tulips. Homeowners and landowners even borrowed against or sold property to continue speculating. Then, a futures market sprung up for tulips in 1636 and became the primary trading vehicle until 1637. At some point, the rich – who originally adorned their gardens with tulips – ceased purchasing tulips for use and sold them for gains. As the selling spread, sentiment turned and prices slumped. Fortunes were destroyed and merchants were left in poverty, holding but a few worthless tulip bulbs. Tulip prices collapsed 90%. Tulip speculators then clamored for government intervention to restore prices.[2]

BUBBLE PSYCHOLOGY

Once a bubble expands to the point of collective awareness by the broad investing universe, behavioral finance dominates the direction and tenure of the bubble. Important tenets of behavioral finance include extrapolation, herding and the greater fool theory. The NASDAQ tech bubble is a textbook example of all three. (However, lest you think these patterns are new or exclusive to securities, refer to the Tulip Mania box below.)

At the height of the "dotcom" boom, new tech stocks were coming to market through initial public offerings (IPOs) and were spiking as much as 100% or more on their first day of trading. The tantalizing prospect of investing $100 in a stock that would be worth $200 the following day fed the demand that drives bubbles.

The internet was indeed a watershed invention, but many investors extrapolated this to mean that business models were infinitely scalable with permanently lower operating costs. As such, they foresaw such profit potential that they were willing to pay exorbitant prices for new tech companies. The resulting "price pop" created persistent upward price momentum.

In turn, the steady climb of tech stock prices activated the "greater fool" aspect of behavioral finance, or the confidence that someone (a 'greater fool') would buy the stock at a higher price tomorrow. If you know that others are desperate to join the profit party, you will have little worry about finding a buyer the next day.

Finally, once performance on these tech stocks became standard-issue water cooler talk, a "herd mentality" took hold. Investors of all stripes clamored for new issue, pushing prices up even farther. We all know how this one ends. Eventually, recognition of the bubble was widespread, and it took just one small price movement to spark a panicked sell-off, wiping out billions of dollars. Even today, the NASDAQ index remains at just 52% of its pre-crash peak.

THE BEAUTY OF BONDS

The yields on U.S. 10-year Treasuries reached generational lows in 2008 and lingered near all-time lows in 2010, prompting speculation that "bonds are in a bubble." But unlike housing, equities and tulips, the potential price of a bond is capped. For example, a zero-coupon U.S. Treasury bond can only increase to a ceiling of $100 since the bond pays out par at maturity.

For the same reason, bond-holders are somewhat protected from a major fall in prices: they are guaranteed a certain yield through the option of holding the bond until it matures. The cost to the bondholder is then just the "opportunity cost" of having purchased it at a lower price (forgoing the higher yield offered on the market after yields rise). To a certain extent, the escape hatch decreases the risk of holding bonds. This is the beauty of the bond: unlike a Beanie Baby, a tulip

or a dot.com stock, its value will not plunge to zero, with the important exception of defaults.

DO ECONOMIC FUNDAMENTALS JUSTIFY LOW INTEREST RATES?

The important question is then: are yields indeed "too low"? We find little evidence to support this view. Yields should reflect the average of future short-term interest rates over the life of the bond. Economic research suggests that interest rates are driven primarily by inflation and economic growth over the long run. Together, these indicators justify the current low level of rates.

First, inflation, which is highly correlated with interest rates, is at all-time lows (See Figure 1). Core U.S. consumer prices, which exclude food and energy, are increasing at just 0.6% year-over-year. Second, economic growth, while better than many were expecting last summer, is merely at its historical average of around 3%. Further, economic growth on average over the last decade has been anemic, due in large part to the 2008-2009 recession. Additional factors such as the demand for U.S. Treasuries globally as reserve and safe haven assets puts further downward pressure on yields.

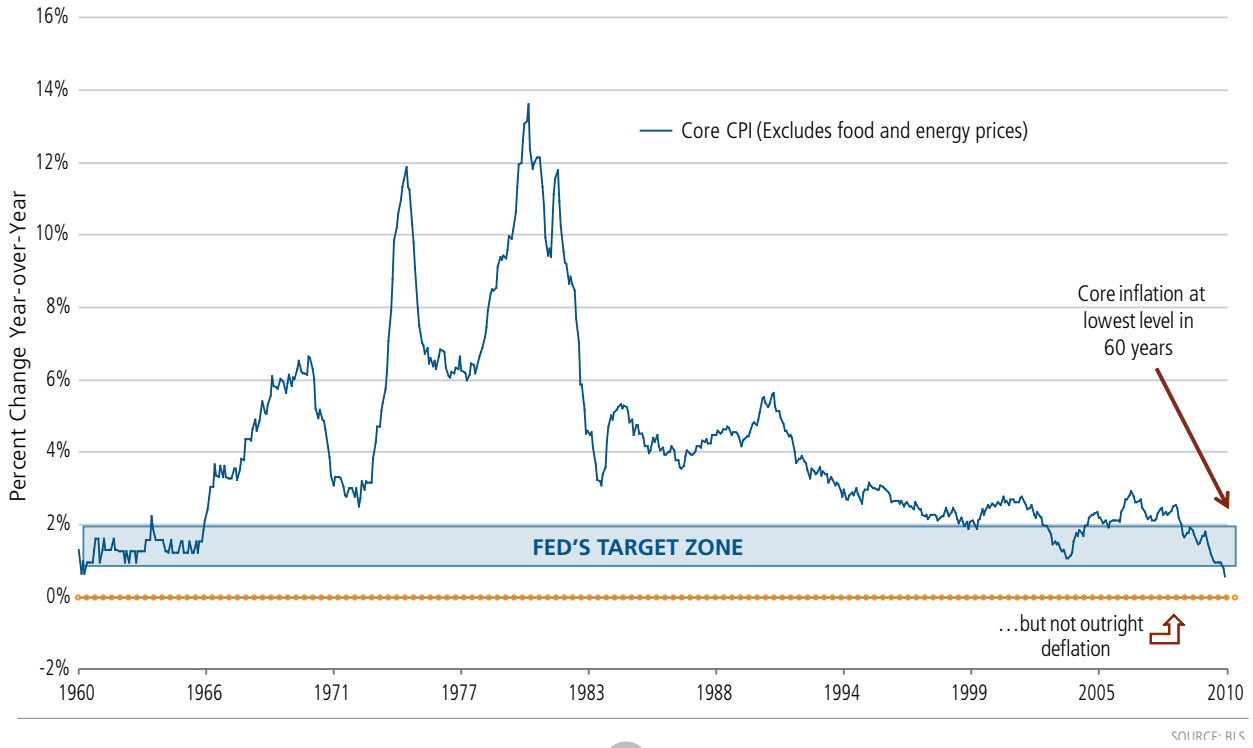
As a result, the current level of yields makes sense given the macro environment, and a sharp rise in rates would be unjustified. Further, contrary to popular perception, high interest rates are the exception rather than the rule. Since 1871, the most common level for long-term interest rates has been in the range of 3% to 4% (See Figure 2). Historically, interest rates have rarely surged into the double digits, and when they have it has usually been in a period of rapid consumer price inflation—a problem the U.S. economy does not face at the moment.

> **"THE LOW LEVEL OF INTEREST RATES IS JUSTIFIED GIVEN THE CURRENT ECONOMIC BACKDROP"**

WHAT COULD DETACH YIELDS FROM FUNDAMENTALS?

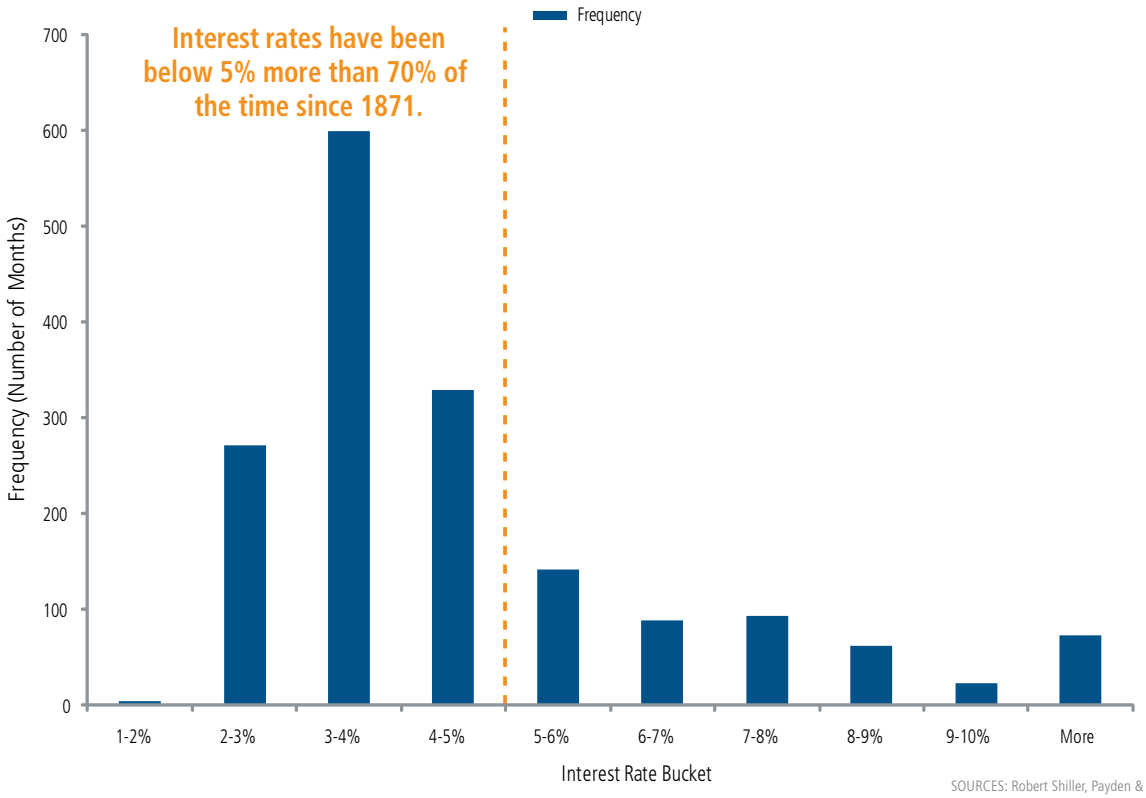
One way a Treasury bond could become detached from fundamentals is if investors valued the bond solely for profit as prices escalate. This means investors, *en masse*, would need to anticipate yields con-

fig. 1 CORE INFLATION IS AT ITS LOWEST LEVEL IN 60 YEARS



SOURCE: BLS

fig. 2 LONG-TERM INTEREST RATES SINCE 1871



SOURCES: Robert Shiller, Payden & Rygel Calculations
*Data available from 1871

tinuing to plunge lower than economic fundamentals warrant. What could drive this development? One possibility: the Federal Reserve's "QE2" program (a plan to purchase $600 billion in additional Treasury securities over eight months) sparked an anticipatory rally in the late summer and early fall. In effect, yields became "detached" from fundamental underpinnings as speculation grew that a large single buyer – the Federal Reserve – would initiate large scale purchases approaching or even exceeding $1 trillion, about 10% of the outstanding Treasury supply. This rally had all the markings of the "bubble" mentality, as investors bet that yields would only move lower with the Fed in the market. In a classic "buy the rumor, sell the news" reaction, 10-year Treasury yields actually rose since the QE2 announcement. As 2011 approached, marginal buyers stepped away from the Treasury market and yields rose nearly 100 basis points to return to levels seen just prior to the first whispers of QE2 and more in line with fundamentals.

HISTORIC PRICES DO NOT A BUBBLE MAKE

Market pundits trip over themselves in an effort to identify the next bubble. The proclivity to label moves of any meaningful size as a bubble is becoming so commonplace, some observers quip that the real bubble is the incessant need to identify bubbles.

A move higher in Treasury yields is possible, but would need to be driven by a sharp improvement in economic data. As yields probe historic lows, remember that observing a financial asset at a historic level is not sufficient to declare a bubble. Bubble hawks will continue to proclaim the next potential bubble just as sports fans label great young basketball stars as the next Michael Jordan. However, record prices (or low yields) alone do not a bubble make.

SOURCES

1 Kindleberger, Charles. "Manias, Panics, and Crashes: A History of Financial Crises." New York: Wiley, 2005.

2 Mackay, Charles. "Extraordinary Popular Delusions and the Madness of Crowds." New York: Harmony Books, 1980.

3 French, Doug. "Early Speculative Bubbles and Increases in the Supply of Money." Ludwig Von Mises Institute, 2009.

My Life in the Bazaar:

The Wonderful World of a Municipal Bond Trader

It is just after 5 AM on a Tuesday morning in Los Angeles. I am sitting at Payden & Rygel's municipal bond trading desk, about to head out into the bazaar that is the municipal bond market. While the term bazaar conjures up images of a Moroccan city with colorful market stalls and haggling vendors as far as the eye can see, the municipal "bazaar" exists in a more modern sense: over the telephone with brokers on Wall Street or regional shops and over the internet via Bloomberg messaging.

As the day begins, a Portfolio Manager (PM) calls to ask some questions on behalf of a client.

> PM: "My client would like to earn some additional income. What's the yield on a 10-year muni bond?"

I glance enviously across the desk at our Treasury market traders. With a single click, they can pull up every Treasury bond in existence, including the "bid" and "ask" prices down to the nearest 1/64 of 1%. The municipal market, by contrast, is not so convenient. Unfortunately, I must answer the PM's question with more questions of my own:

> Me: "Well, is the client looking for a general obligation (GO) bond or a revenue bond?
>
> "A state-specific issuer or generic municipal bond?
>
> "A bullet maturity bond or a callable bond (which gives the issuer the option of calling the bond prior to maturity)?
>
> "How much risk can the client tolerate?"

A slight pause follows.

> PM: "I'd just like to find out how much a 10-year California GO bond would yield."
>
> Me: "You got it. Let me see what I can find."

With that, I dive into the bazaar to find yields on 10-year bonds offered in the marketplace. Unlike most other U.S. bonds, which trade off the Treasury yield curve, municipal bonds have their own curve. In fact, there are two widely-recognized curves indicating what a "high grade" (AAA-rated) municipal at each maturity would yield. I take a look at the Thomson Reuters Municipal Market Data yield curve, and it indicates that the after tax yield on a generic 10-year bond would be 3.36%.

THERE IS NO MUNI "MARKET"

Finding a generalized bond price is the easy part. I now need to find a price for the specific bond we would want to buy. Finding the price is not as simple as pulling up a Bloomberg screen, however, because there is no single municipal bond market. Issuers are very diverse, including state and local governments, their agencies, and not-for-profit organizations (see Figure 3). Even corporations can issue tax-exempt bonds, when certain projects such as stadiums or pollution control are sponsored by a municipal entity. There are about 55,000 issuers in the municipal market, with

DID YOU KNOW?
The term bazaar can be traced to the Middle Persian word baha-char, meaning "the place of prices."

over 2 million individual securities! (Compare that to the corporate bond market, which has only around 600 issuers and 3,600 unique securities.) Furthermore, government debt-service laws result in complicated deal structures with a multitude of individual securities. Because the market is so diverse, there is no formal exchange system and therefore no unified municipal market.

> **"BECAUSE THE MARKET IS SO DIVERSE, THERE IS NO FORMAL EXCHANGE SYSTEM AND THEREFORE NO UNIFIED MUNICIPAL MARKET."**

BUYING, BAZAAR-STYLE

Instead, bonds are traded "over the counter" with just one buyer and one seller. Dealers make "two-sided" markets on only the largest and newest issues. To help estimate a "fair value" for a bond, several firms provide evaluative services. I use this information, along with recent trade disclosures (required by the Municipal Securities Research Board, a regulatory body) to help shape my offer.

To actually buy bonds, I haggle with the brokers in either the new-issue or the secondary market. In the new-issue market, I put in an order to an intermediate broker-dealer who then allocates the available bonds among all the orders according to a variety of factors. In the secondary market, I either buy directly from a broker-dealer on their direct inventory offerings, or they help me find the right bond from the offerings of other investors. I am in constant contact with about 40 such dealers. Some are generalists and some specialize in a particular area, such as Arkansas state bonds. Much like a shopper in a bazaar would go to the spice vendor for saffron and the baker for bread, I know who to call about a New York City School District bond.

SELLING, BAZAAR-STYLE

As an institutional money manager, I have a number of tools at my disposal to sell municipal bonds. I can go "bid-wanted" by advertising that I am entertaining bids on my bonds within a specific time frame. This is much like selling on eBay, except the existing bids are not publicly advertised. I can also offer the bond directly on several platforms at a specific "buy it now" price. Another method would be to utilize a specific broker's network of accounts, working with the broker who has the most experience selling those bonds and would have access to the most eligible buyers. I use all three methods, depending on what kind of bond I need to sell.

WHY BUY MUNICIPAL BONDS?

Who buys all these bonds? Two big incentives draw investors into the municipal market – taxes and safety. Municipal bonds are generally exempt from federal taxes, and certain states exempt their own bonds from state taxes as well. As you can imagine, this can make a very big difference to someone in the highest income tax bracket. Currently, a generic 10-year AA-rated muni bond for someone in the highest tax bracket is paying a higher yield than an A-rated industrial corporate bond by more than half a percent in yield, which adds up when compounded over 10 years.

> **"TWO BIG INCENTIVES DRAW INVESTORS INTO THE MUNICIPAL MARKET – TAXES AND SAFETY."**

Municipal bonds can also be less risky, particularly state obligations. All states are investment grade rated, compared to only 4% of US non-financial companies. States cannot declare bankruptcy, and in the last century, only Arkansas has defaulted on its debt, during the depths of the Great Depression. This compares to an annual one-year corporate default rate of 9.2% among rated debt over the same period.1 Moreover, the vast majority of municipal defaults have been in the hospital and housing sectors.

Continued on page 9

What is Stopping the Invisible Hand in Water Markets?

The Price isn't Right

Markets are useful things. They allocate resources in society by playing matchmaker between hopeful sellers and willing buyers. Adam Smith, the founder of modern economics, described the process as an "invisible hand" that leads to the socially optimal distribution of goods. In reality, the magic-worker is price. Prices are signals of scarcity and prompt both supply and demand to balance. High or rising prices induce suppliers to find more resources and force buyers to conserve. In general, *if the price is right, there should be neither leftovers nor shortages.* We accept this for financial markets. Water shortages, however, are common, a consequence of the absence of a well-functioning market. Below, we explore some of the obstacles facing the formation of water markets.

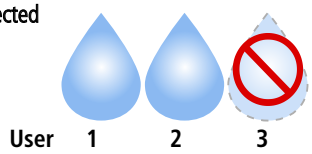
1. **Water's physical properties** make it hard to assign and enforce property rights, which are critical to a functioning market. Who owns the segments of a flowing river? Should a landowner be able to draw unlimited groundwater from his well even though it depletes the community's aquifer?
2. **Rain Falls Where You Need It Least.** Most rain falls on places that are already wet, and the places that need water the most must import it. Piping water across vast distances is very expensive, raising the transaction cost of redistributing water. California offers a good example of this distribution problem (See map, opposite).
3. **Externalities.** Externalities are costs (or benefits) that are external to both buyer and seller. Since neither party is affected, the price does not reflect these costs, and the water is not allocated optimally. Recreational ocean visitors (or fish or ocean swimmers) may value clean water, but if they have no official property rights then they are left out of the market and the ocean may become polluted. Who pays these external costs?
4. **Byzantine regulatory structure.** There are over 50,000 water utilities in the United States, not to mention many thousands of water districts, federal projects, interstate compacts and international treaties. Their jurisdictions overlap but their interests often do not, making regulatory change difficult.
5. **Central Planning.** Rather than being determined by the market, water prices are often set by government agencies without regard to *opportunity cost* (See box). This flaunts reality and often sends an incorrect signal to consumers about the availability of water. Would homeowners still water lawns at higher prices? Further distorting the market is the fact that prices set by regulatory bodies can be vastly different for different users. For example, farmers in California's Imperial Irrigation District paid $20 per acre-foot (af) of water despite the willingness of drought-stricken San Diego to pay $225/af for the same water. Situations like these provide ample opportunity for efficiency gains through reallocating some water to higher-value residential or commercial purposes.

Jargon Watch

Opportunity cost (n):
Everything has an opportunity cost, which is simply the 'next best option' (e.g., the opportunity cost of staying an extra hour at work is whatever you would have done otherwise, such as cooking dinner). Such costs are important to setting prices, but functioning markets incorporate them automatically.

Writing Rights

	"Riparian" (Eastern U.S.)	"Prior Appropriation" (Western U.S.)
Type of Terrain	Lots of water in many smaller rivers	Mostly dry but a few very big rivers
Rights Acquired by:	Owning land next to water	Filing a claim
Rights Transferred by:	Purchasing the land	Sale of the right, but only if it does not affect any other users (rarely true, so impedes transfers)
Quantity Allowed	Unspecified, but use can't impact others	Precisely defined
Conditions of Use	Must be put to "beneficial use." You must use it or lose it (discourages conservation)	Same as Riparian
Rights-Holders Hierarchy	Are all co-equal	Based on when you filed your claim: "First in time, first in right." Mining and agriculture came first, then cities
In the Case of Shortage	Hardship is shared equally between users	Junior rights-holders lose water first while senior rights-holders are unaffected



SOURCE: Legislative Analyst's Office

California: *Flowing Uphill Toward Money*

Mismatched Supply

It is said that water in California flows "uphill toward money." Most of the Golden State's water falls as rain or snow in the northern half of the state and is subsequently piped down to the more arid and populous south, setting the stage for the state's endless water wars. However, water is notoriously costly to transport. In fact, water infrastructure returns less revenue per dollar of capital investment than any other utility. The map below illustrates California's mismatch between rainfall and population.

Owens Valley

The movie Chinatown looks at the saga of Los Angeles water procurement. As director of the LA Dept. of Water and Power at the turn of the century, William Mulholland managed to secure the rights to water from the Owens Valley, 250 miles away. This diversion was the first installment of the water wars between Northern and Southern California.

Average Precipitation

- 32+ inches/year
- 80+ inches/year

STATE WATER PROJECT

LOS ANGELES AQUEDUCT

COLORADO RIVER AQUEDUCT

GROUNDWATER

Los Angeles

San Bernardino

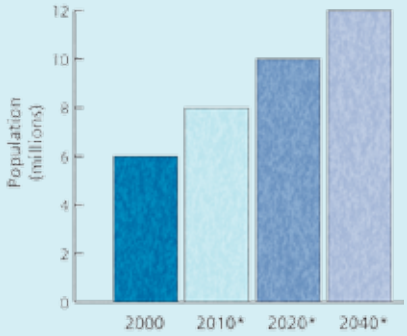
Riverside

Orange

San Diego

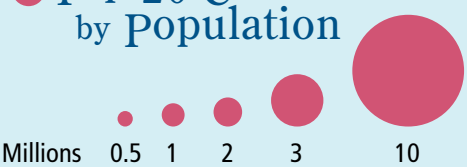
Growing Demand

California's population is projected to continue to grow, and over 60% of residents live in the southern-most third of the state.



*Estimate based on 2000 Census data

Top 20 Counties by Population



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THE IMPORTANCE OF AN ACTIVE MANAGER

By the end of the day, I call the PM to provide a status update:

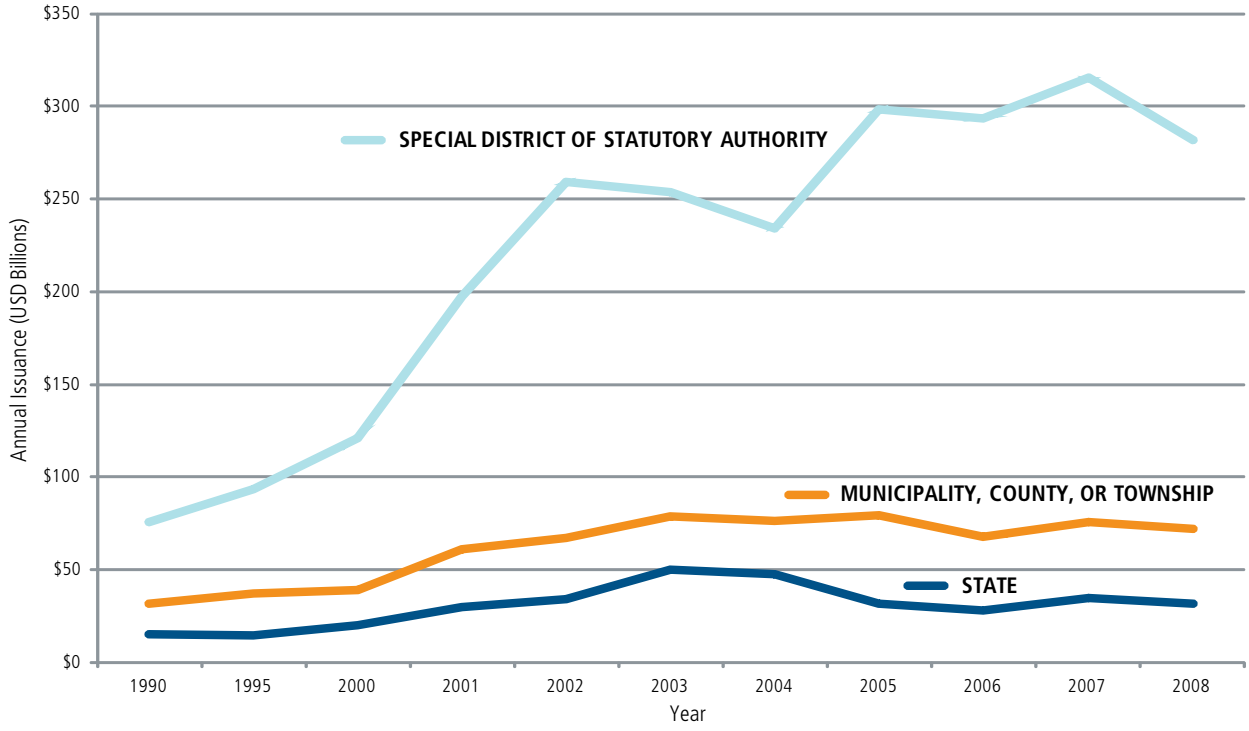
> Me: "I sold a 3-year Cal Infra (California Infrastructure & Economic Development Bank) and purchased the 10-year State of California GO bonds. We picked up 300 basis points, or 3.00% in yield.
>
> PM: "It took all day?"
>
> Me: "Just another day in the bazaar."

In the film *Casablanca*, Ingrid Bergman's character is shopping for textiles in the bazaar. When Rick (Humphrey Bogart) appears, the trader suddenly changes the price: "For friends of Rick, we have a special price." This brief exchange illustrates a critical point about life in a bazaar: one must be engaged on a daily basis, monitoring the supply and quality of goods offered and the prices available, in order to make objective investment decisions. It is not simply a matter of selecting a bond from a computer screen. Local knowledge matters in municipal bonds, perhaps more so than in any other market. Just as in the bazaar, personal relationships are important in securing a good price. Investors whose attention is spread across many asset classes cannot possibly focus sufficiently on the municipal market and are therefore vulnerable to paying a tourist's price.

SOURCES

1 Carty, Lea V. and Dana Lieberman, "Historic Default Rates of Corporate Bond Issuers, 1920-1996." Moody's Investors Service.

fig. 3 Transformation of the Municipal Market: Issuance by Government Type



SOURCES: Federal Reserve, Census Bureau

A Fresh Look at the World Economy: *Integration Not Competition*

Today it is popular to view the world economy as on the cusp of a new era. As the "advanced" economies stagnate, saddled with debt and fiscal dysfunction, the "emerging market" economies appear poised to surge. "The decline of the West and the rise of the Rest" has become the catchphrase for the new age.

Indeed, this appears to be the world in which we live. While the U.S. and Europe struggled to top 1-2% annual rates of growth in 2010, the rest of the world enjoyed a quasi-boom period. Asia grew 8%, South America enjoyed 6.3% growth, Africa reached 5% and the Middle East and Northern Africa exceeded 4%. Thinking of it in another way, 40% of the world's population resides in China and India – both of which approached a 10% economic growth rate in 2010.1

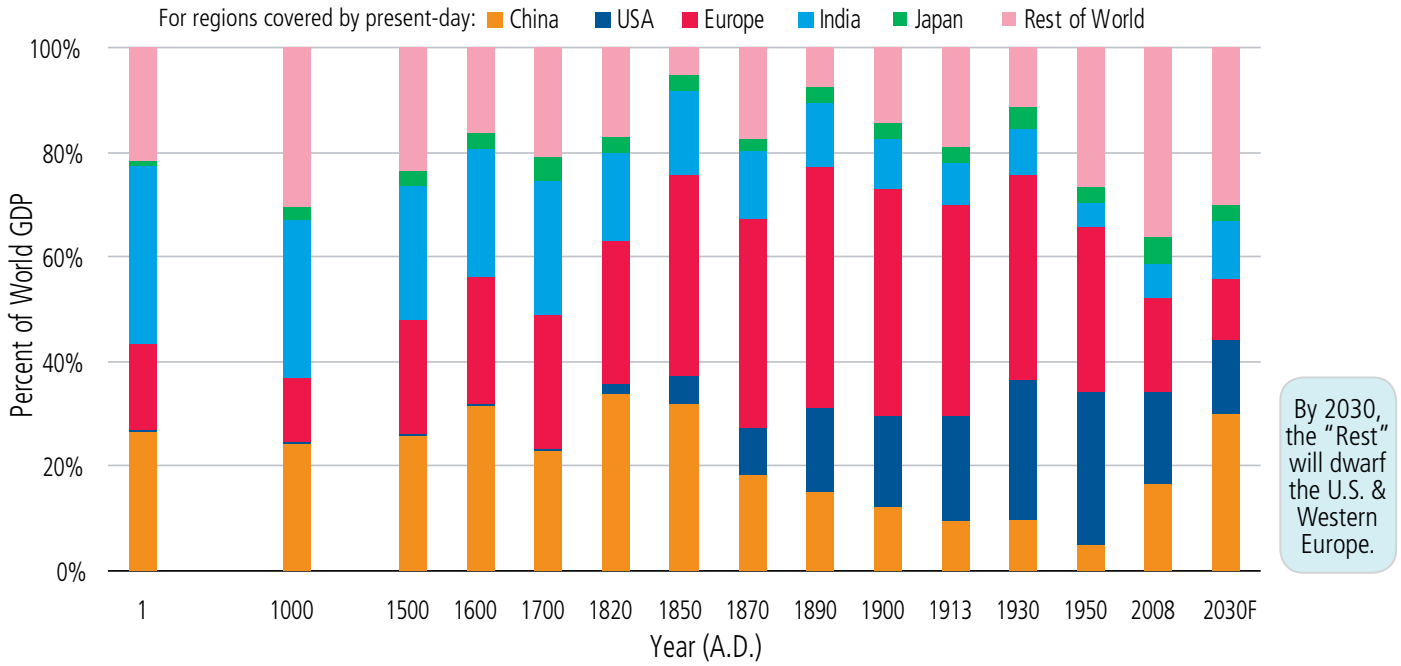
Unfortunately, this also conjures up images of an economic rivalry between the West and the Rest and the fear that world growth will again falter without a powerful U.S. consumer. Fortunately, this is the wrong way to think about the world economy. The real story of the world economy is one of integration, not a zero-sum competition where one country gains at the expense of another. In addition, the rise of a truly global middle class will create consumption power unseen in human history.

THE CONTOURS OF WORLD ECONOMIC HISTORY

A longer-term perspective paints a different portrait of the world economy. Taking a trip back in time through the period from 1 AD to 1000 AD, we would have witnessed the world population growing by just 17% and per capita gross domestic product (GDP – a proxy for human living standards) actually falling slightly. We would also see the regions now encompassed by India and China dominating the global economy (see Figure 4). In fact, around 1500 AD parts of India and China were at least as wealthy as the Western world. By the fifteenth century, China built and sailed fleets of ships to ports in Asia and East Africa. When Admiral Zheng He sailed from Nanjing to Sri Lanka in 1405, he com-

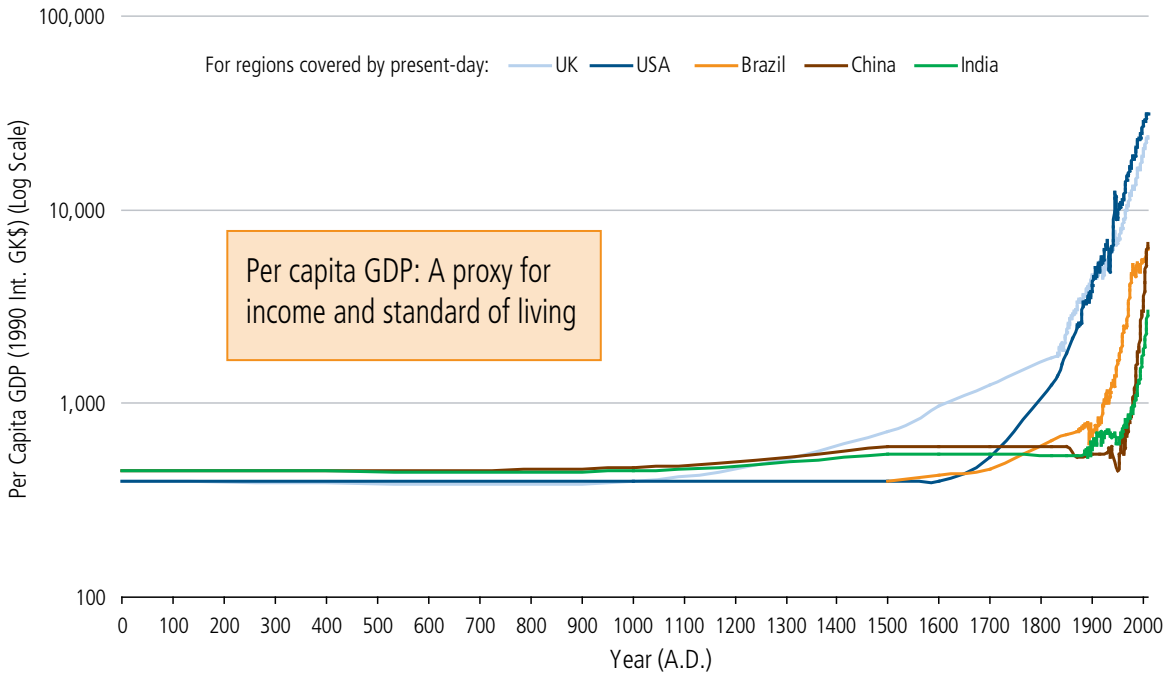
fig. 4 A Tour Through World Economic History

Share of World Economic Activity by Region



SOURCE: Historical Statistics of the World Economy, Angus Maddison

fig. 5 Per Capita GDP by Region



SOURCE: Historical Statistics of the World Economy, Angus Maddison

manded 300 vessels, manned by 27,000 sailors, 180 doctors and even pharmacists. When Christopher Columbus ventured out across the Atlantic from Cadiz in 1492, he boasted just 3 small ships and only 90 men.2

But even in Columbus's time, approximately three centuries before the start of the Industrial Revolution, the average per-capita income (in today's dollars) was about $660, with a standard deviation of $180 – not much of a difference on a global basis. The dramatic rise of the West (led by Western Europe and most recently the United States) occurred only over the last 200 years. Between 1000 AD and 1998, world population rose 22-fold and per capita income 13-fold with the vast majority of those gains materializing in the years after 1820.3 As a chart of economic history shows (see Figure 5), the West took flight.

GLOBAL GROWTH TECTONIC SHIFT: FOLLOW THE PEOPLE

The key hurdle of the Industrial Revolution was that of population growth. Up until 1800, economic growth teetered on the edge of the "Malthusian trap" – just as the economy began to grow, rapid population growth wiped out food supplies and caused population declines. After 1820 and the rise of industry, population ceased to be an impediment to prosperity and today serves to drive global growth. The re-emergence of the "Rest" is now upon us, a shift that only gathered momentum in the last 30 years. From 1973-85, advanced economies accounted for 60% of world GDP growth. This has changed. From 1986-2007, the emerging markets contributed 47% of the average 3.7% annual growth in world GDP.

The economic revolution of the last 30 years is unprecedented in human history. It has involved more than 2.5 billion individuals in just India and China alone. By comparison, the West's Industrial Revolution involved around 250 million people.4

AVOIDING THE "US" VERSUS "THEM" MENTALITY IN THE NEW ECONOMIC REALITY

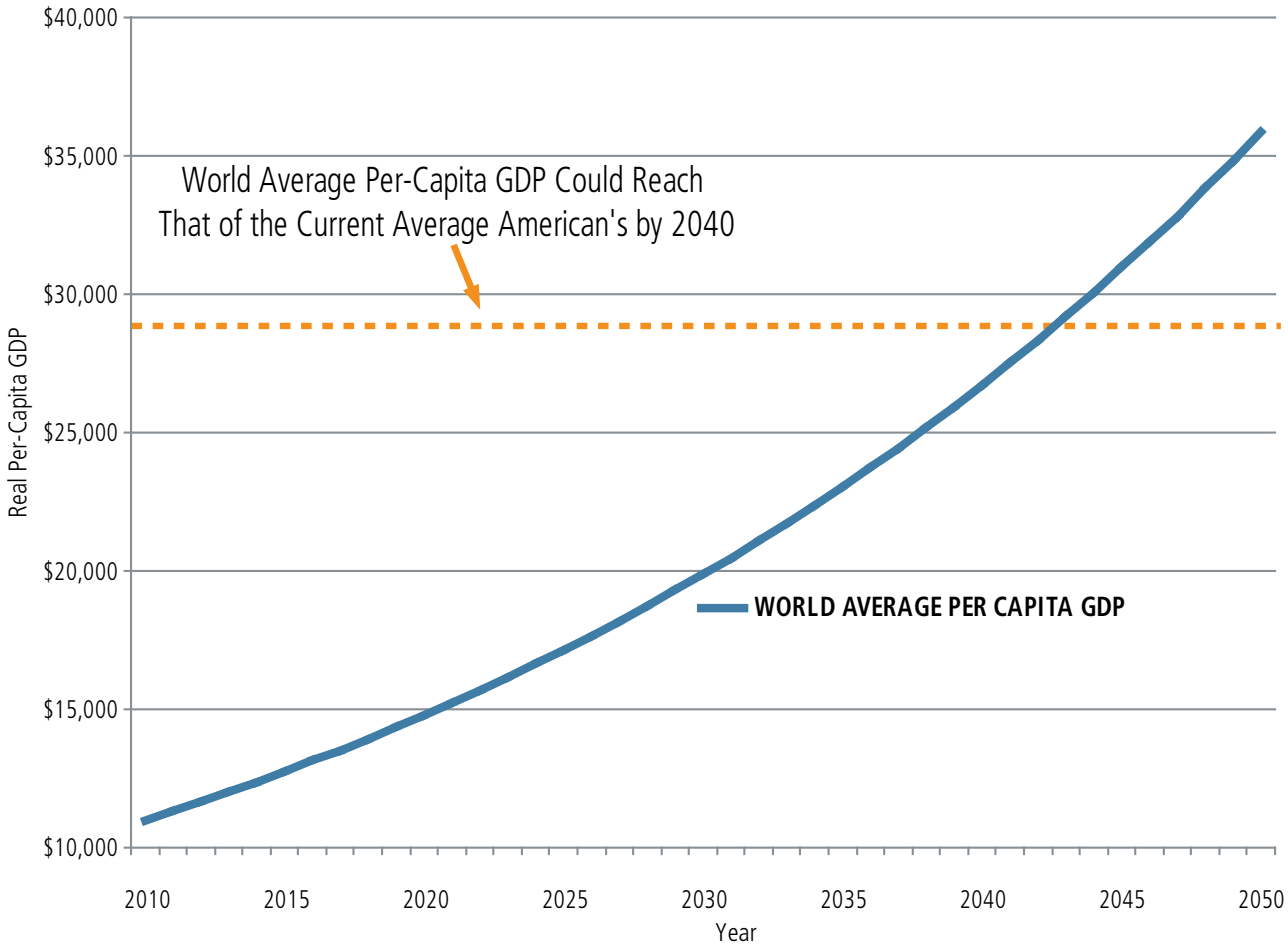
It is a fantastic story but, increasingly, the rise of the Rest causes concern. China's economy has doubled in size in the last seven years. Media stories tout the fact that "China's economy will surpass the United States by 2030," but the widespread concern is overblown. The mistake here is to view the size of the global economy as a zero-sum competition of winners and losers. This

obscures the reality of changes in the world economy.

For example, the emerging economies traditionally exported commodities and raw materials to the developed world, which in turn focused on manufacturing output. Today, a rising share of manufacturing output is done in the emerging world. The shift in the Western world is away from manufacturing and toward services. However, the much-talked about U.S. imports from China masks the complexity of the global economy. Examine the import data and you find that 55% of U.S. imports are "industrial supplies and material" and "capital goods excluding automotives." Rather than running a "massive trade deficit" driven by consumer purchases of "cheap foreign products," U.S. companies are importing components and intermediate goods used in the production process of domestic firms. In short, access to imports boosts U.S. production!5

Further, as of 2006, more than 5 million U.S. workers were employed by foreign majority-owned companies. These companies accounted for 13% of U.S. exports and 22% of U.S. import activity. U.S. companies also invest heavily abroad. U.S. direct investment abroad totaled $3.2 trillion in 2008. Approximately 70% of the top 200 exporting companies in China are U.S. or foreign multinationals or joint venture companies. This blurs the line between what is "American made" and "foreign made." Is a minivan produced in North Carolina by a foreign-owned auto company an America made car? Is an electronic device manufactured in China by a U.S. multinational company Chinese made? This is not one nation-state versus another in a head-to-head battle for economic supremacy; this is a story

fig. 6 Forecast for Average Global Living Standards Over the Next 40 Years



SOURCE: Payden Estimates

of global production, cooperation and integration.

Traditional international trade statistics – imports and exports – fail to fully explain the global economy. But the global supply chains criss-crossing the globe ensure that through trade we all benefit from what is "made on Earth."

BEYOND THE BRICS: A MIDDLE CLASS WORLD

The transformation goes far beyond the BRICs (Brazil, Russia, India, China). Which country exhibited the fastest rate of economic growth over the last decade? No, not China. It was Angola, according to data from the International Monetary Fund. In fact, for countries with more than 10 million residents, 5 of the top ten fastest-growing economies are in Africa. Further, the IMF projects that this number will rise to 7 out of 10 over the next 5 years.

These emerging nations are doing more than just producing – they are building the basis for domestic consumption. The global consumption story is driven by the burgeoning middle class. Defined as the global population of consumers with between $10 and $100 per day in discretionary spending power, the share of the world population classified as "middle class" rose from just 2% in 1820 to 23% by 1950. By 2010, more than half the world may be considered "middle class" for the first time in history.

A 20-YEAR ECONOMIC FORECAST: WHAT WILL THE WORLD LOOK LIKE IN 2030 AND BEYOND?

More than a billion people rose out of extreme poverty in a short span of time. In 1980, more than one-third of the world's population was classified as extremely poor; less than 10% is today. A similar transformation has occurred in the global middle class. If we think of the Earth as a global marketplace, then the most relevant economic statistic for global well-being is average world per capita income. Despite the setback of the Great Recession, average world per capita GDP is estimated at $11,000 in 2010, up from $8,500 in 2000—a 30% expansion in just 10 years. To put this in perspective: the same growth we have seen in the last decade took about 700 years to achieve between 1000 AD to 1700 AD. The same advance in living standards we have witnessed over the last decade took 50 years to complete after 1820.

What could the next two decades hold? Conservatively, if the world economy continues to expand at the pace witnessed in the previous decade (just under 3% per annum), sometime during the 2030s the average human will enjoy a per capita GDP of around $30,000 (adjusted for inflation). Remarkably, that $30,000 is about what the average American enjoys today (Figure 6).

This has monumental implications for the world economy. The world will be significantly wealthier and the economic center of gravity will have shifted to Asia, which will generate over half of all economic activity. In fact, this would bring world economic history full circle, returning it to pre-Industrial Revolution balance. It is not a zero-sum game, however. Asia's share of the economic pie will be larger, but the whole pie will have also grown so much that the West's slice will also be much larger than it is today. This time around, instead of one region leaving another behind, growth is being achieved through integration and cooperation.

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