

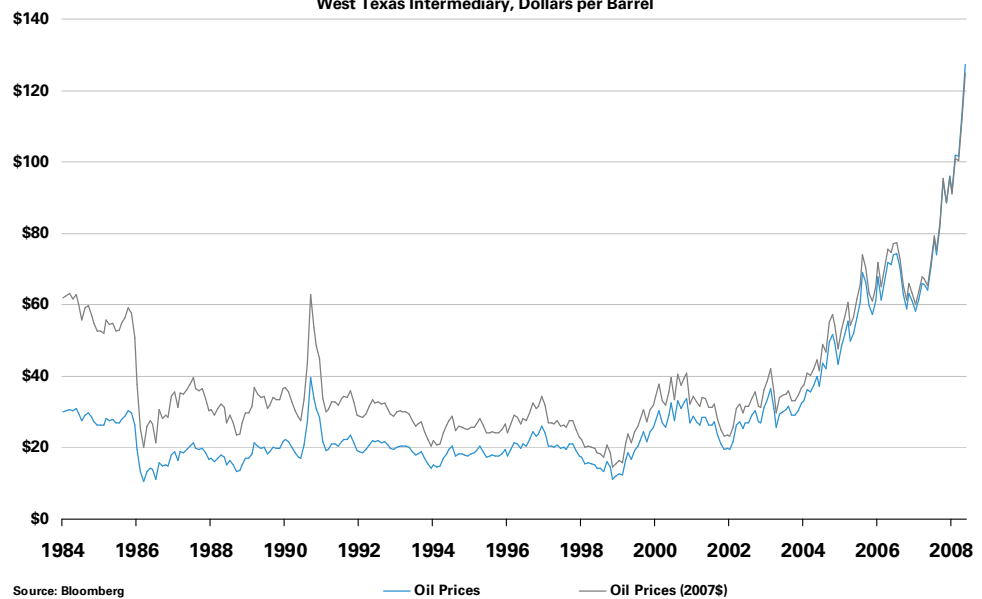
# US Real Estate Market Prospects in an Era of Elevated Commodity Prices

## Introduction

In 2008, two significant fundamentals underlying the world economy changed. If not permanent, these changes should be sustained over the next several years: the dramatic increase in the price of energy (along with other raw materials) and the declining value of the dollar relative to other world currencies. Both the US and global economies benefited tremendously from a low cost, low inflation environment over the past 20 years, with the US as a particular beneficiary. Rates of inflation, the cost of capital, and pricing for oil, gas and other raw materials have remained low for several decades, even creating nearly deflationary conditions at some points. During this period, the US dollar remained relatively strong against other major currencies. These conditions provided a solid foundation for rapid economic growth in the 1990s, cushioned the economic downturn in 2001, and assisted the recovery over the past several years. Healthy economic growth in the US helped to fuel growth of the global economy and poor economic policies in the US that produced substantial fiscal and trade deficits<sup>1</sup> could be ignored in this benign environment.

**Chart 1: Oil Prices**

West Texas Intermediary, Dollars per Barrel



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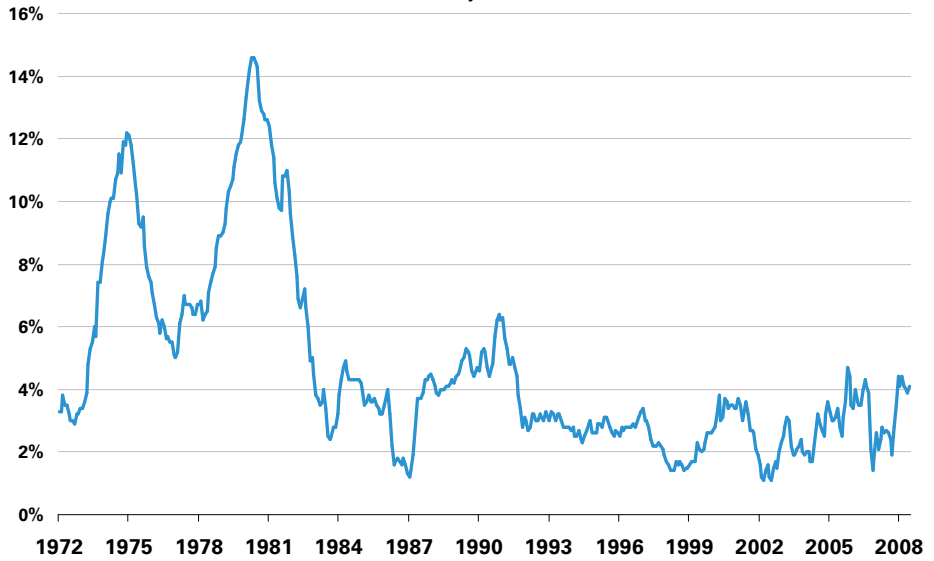
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<sup>1</sup> A wealthy economy like the US can sustain trade deficits; however, those of recent years have been excessive by historical standards.

These underlying fundamentals look very different today in mid-2008. At around \$146 per barrel<sup>2</sup>, oil is now 470% higher than its average of \$31 (on a constant 2007 dollar basis) over the 18-year period between 1986 and 2004 (see Chart 1). Inflation has also begun to edge upward, with CPI having averaged a restrained 3.0% over the 20-year period from 1986 to 2007, rising to above a forecast of 5% in 2008 (see Chart 2). The value of the dollar, which had

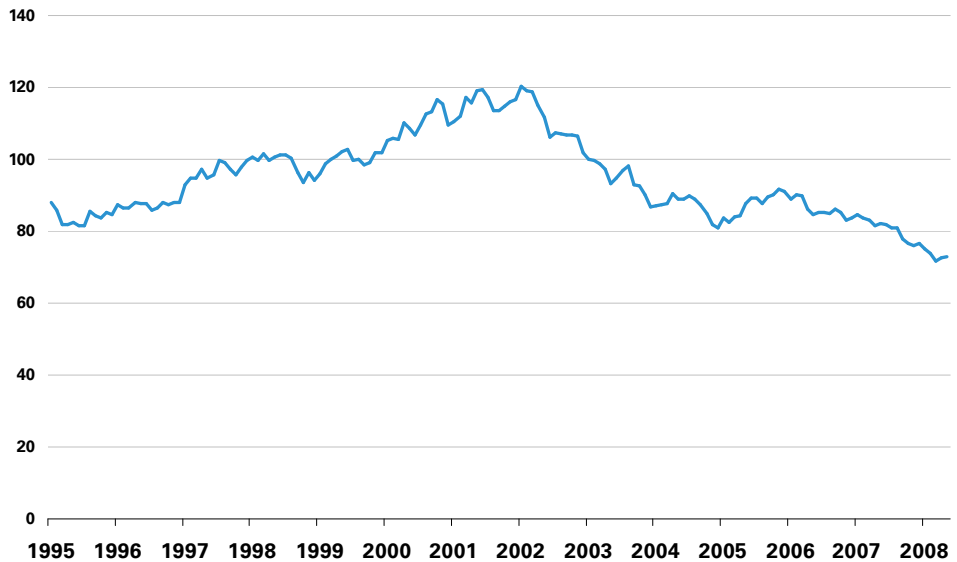
**Chart 2: US Inflation**  
measured by YoYΔ in CPI



Source: Bureau of Labor Statistics

been robust from 1997 through 2005, has taken a dive, particularly in the past year and is currently at a historic low point relative to other major currencies (see Chart 3). This has added to inflationary pressures by raising the price of imports and allowing price increases on import

**Chart 3: Trade Weighted Dollar Index**



Source: Bloomberg

<sup>2</sup> Forecast average price of oil for Q3 2008.

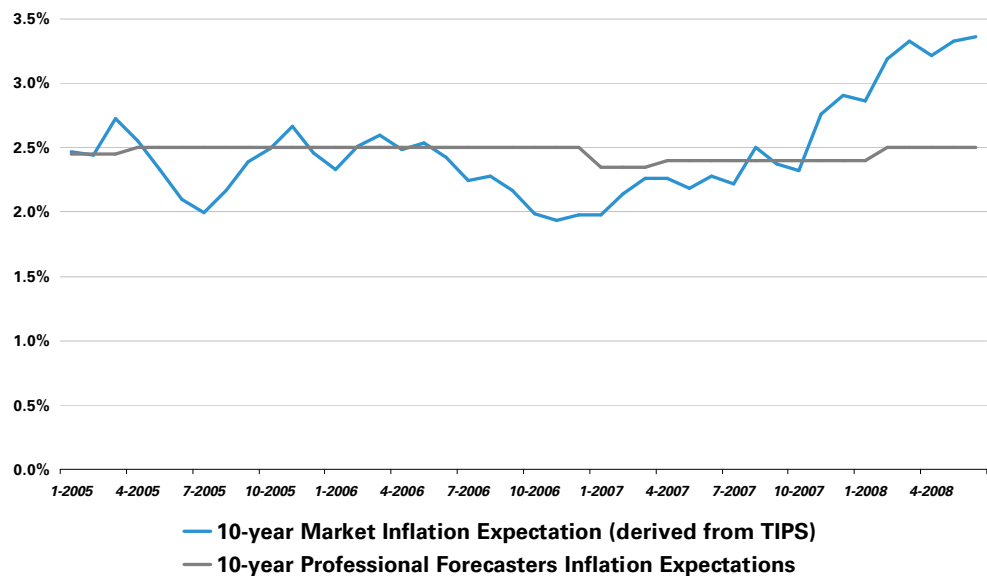
substitution products. The lower value of the dollar is also leading to inflationary pressures among all countries that are pegged to the US currency.

Such major shifts in powerful forces that provide foundations for the economy do not take hold without causing significant changes in how the economy functions. These changes in turn will alter demand for real estate. This paper anticipates structural changes to the workings of the economy over the next five years and predicts how these changes will impact real estate markets.

## Anticipated Economic Behavioral Changes

RREEF Research's forecasts indicate that most of these economic shifts will endure over the next five years or more in the US. Oil prices, while not expected to remain at current levels, are nonetheless forecast to remain above \$140 per barrel through 2009, and drop to between \$95 and \$110 per barrel thereafter through 2012. Even the low end of this range is still more than three times its 1986 through 2004 average. Inflation rates are expected to rise further from their current levels and then drop in response to the currently slow economy by late 2008 and early 2009 (see Chart 4). However, as the economy re-accelerates, the Federal Reserve will have to balance strong inflationary pressures against the need to allow the economy to resume growth. We believe it is probable that the Fed will err on the side of growth, leaving inflation at levels that are elevated in comparison with recent history. As a result, interest rates will also be somewhat elevated. Finally, the US dollar is forecast to

**Chart 4: Ten Year forecasts on inflation**



remain weak against other major currencies, particularly the Euro, and is expected to fall further in the near-term. This inflationary expectation is in agreement with 10-year TIPS pricing, which forecasts rising interest rates. Most importantly, the combination of high commodity prices due to global demand (particularly oil) and the falling value of the dollar are having a uniquely severe impact on the US economy.

Based on these mega-forces in the economy, we have identified likely economic behavioral changes that we anticipate below:

International Trade. High energy costs will discourage shipping of heavy low-value goods in response to a rapid increase in shipping rates. The weak US dollar will discourage imports and encourage exports. With these two combined forces, imports of goods, particularly heavy low value goods, should decrease substantially. While container volume into the US grew at an average rate of 6.2% between 1998 and 2007, growth is forecast to average between 1% and 2% annually through 2012.<sup>3</sup> At the same time, exports, which have comprised a small portion of US trade, are growing rapidly, but should also be somewhat limited by shipping costs.

Overall, we expect the following impacts on trade:

- A slowing of port activity, particularly of imports. However, shipping should benefit from efficiencies through more balanced import/export loads. Import volume from Atlantic trade is expected to suffer more than Pacific trade.
- Benefits to ports that offer a shortened shipping distance. For example, the Pacific Northwest and British Columbia should benefit from relative proximity to Asia compared with the longer shipping distance to California.
- Increased production within North America made more competitive due to high transport costs. We anticipate that this could particularly benefit production in Mexico, with its relatively convenient transport options to the US.
- An increase in manufacturing in the southeastern US. Given its highly competitive cost structure, the region should attract even more manufacturing facilities, to some extent replacing goods now being manufactured overseas. For example, automobile production could ramp up further, off-setting those fuel efficient vehicles now being imported.
- In reference to Thomas Friedman's best-selling book, the world is becoming much less "flat."
- Rail should generally benefit, given its relative energy efficiency. However, some demand should shift away from ports to manufacturing sources. Rail lines between Mexico and the US should experience the strongest growth. Rail lines in the southeast should also benefit.
- Air cargo volumes should decline overall, but continue to thrive in transporting high-value goods.

Employment Centers. With high gas prices, employers will need to locate where they can attract employees who do not need to drive long distances. This will generally mean that employers will seek locations that are central to high density residential areas. Where possible, they will seek locations that are well served by public transportation. Thus, CBDs and inner-ring commercial concentrations will benefit over peripheral suburban locations. This is a trend we have been seeing even prior to the run-up in energy prices, as a result of changes in lifestyle preferences and demographic changes. Generally, we have seen that workers prefer a workplace that is convenient to services, restaurants and social gathering spots. In addition, some workers like the option to use public transportation. With the advent of high gas prices, this ongoing trend will be amplified.

Residential Locations. High gas prices will also impact residential location decisions. Long distance commutes have become costly, particularly for lower and mid-level employees. A short automotive commute, a commute by public transport, and even a walking or bicycling

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<sup>3</sup> Drewry Consultancy

commute has become more appealing. Thus, demand will increase for residential locations with good access to employment centers and will decrease for peripheral suburban bedroom communities that are poorly served by transit.

Regional Impacts. These economic forces are likely to benefit diversified urban centers that provide attractive residential patterns relative to employment centers, and which offer efficient transportation networks linking the two. The US Southeast and Mexico should particularly benefit from manufacturing growth, while central distribution centers at major transportation hubs should also thrive over port locations. Detroit in particular is poorly positioned, with its economic dependence on an automobile industry focused on large fuel-inefficient vehicles and its residential and employment center patterns that encourage long distance commuting, with little transit support. Numerous other metros, especially in the Sunbelt region, also have sprawling land use patterns with poor transit service. Many of these cities are beginning to catch up with new transit systems and higher density in-town mixed-use centers located along those transit systems. Such areas of these metros should benefit.

## Impact on US Real Estate Markets

The economic forces of higher energy costs, high inflation and interest rates, and a weaker dollar are likely to have a substantial impact on the types and locations of real estate that will be in demand in the future. For all property types, demand is expected to shift toward centrally located higher density living and working environments. This shift should favor mixed-use and transit oriented communities. Some of these impacts by property type are as follows:

**Residential/Apartments:** The rising price of energy for transportation and home heating and air conditioning will likely compound a trend already underway toward smaller homes in locations close to employment. During the past 20 years, with low energy costs, home buyers showed a preference for large homes on large lots in value locations, which tended to be a considerable distance from employment centers. With higher costs for transportation and operating costs for large homes, consumers' trade-offs between home size/lot size and location are expected to tilt toward location. As a result, the spread in values between homes in central and peripheral locations should widen. In the current deflationary housing market, we are noting that centrally located homes are holding their value better than those in peripheral locations. In order to obtain affordable housing in central locations, buyers will increasingly accept higher density living, including condominiums, townhomes and small lot single family homes. With the convenience they afford, mixed-use environments will particularly benefit.

Apartments will also benefit from these trends, as they become an affordable alternative to centrally located for-sale housing. Apartments in peripheral locations will perform relatively poorly.

**Industrial.** Based upon the macroeconomic trends discussed above, we expect the following impacts on industrial markets:

- A significant projected slowdown of growth in transoceanic import volume will mean much slower growth in demand for industrial warehouse space oriented toward import activity at ports, especially those on the Atlantic coast. Newer secondary ports should experience particularly slow growth and possibly declines. Major first tier ports such as Los Angeles/Long Beach and Northern New Jersey should hold up relatively well, providing stability for their neighboring industrial submarkets.

- Strong projected growth in exports will benefit industrial space that services this activity. As a result, export-oriented ports should benefit over those that are import-oriented.
- Manufacturing activity in the US should strengthen in response to high shipping costs and the weak dollar. Industrial space servicing this sector should outperform. Business parks in strategic locations should fare well.
- Warehouse/distribution centers that support imports from Mexico and rising production in the Southeast should also outperform.
- Growth in rail traffic should benefit industrial properties that are rail served.

**Office.** Employers are increasingly expected to opt for locations that are central to their workforce. Dense residential environments with desirable housing and locations well served by transit will be preferred. Thus, CBDs and inner-ring commercial centers will outperform most suburban markets. Mixed-use environments offering convenient access to public transport, services and restaurants/retail will experience the strongest performance.

**Retail.** The retail property sector is being negatively impacted by the current economic slowdown, largely driven by a weak housing sector and the negative wealth effect of declining home values nationally. The current unexpectedly high spike in oil prices will have an even more severe impact on retail spending going forward. With further anticipated declines in disposable income due to high energy prices, retail sales for discretionary items are taking a particularly hard hit. At the same time, cost of goods for retailers, particularly imports, are rising, both due to currency devaluation and rising transport costs. As a result, the retail industry can look forward to a couple of years of difficulty as it adjusts to these impacts.

Over the past 20 years, a retailing preference for very large centers containing large format stores has emerged, serving a population within a broad radius. Future residential and work patterns, combined with high transportation costs, should make such formats less desirable. A shift in consumer demand to smaller format stores in locations convenient to high density residential area will create new opportunities for retailing in the future. Retail centers within mixed-use environments will outperform in particular. Large power centers located on the urban periphery, located some distance from population concentrations, are likely to fare poorly during the next few years.

**Hotel.** Hotel markets in the US could potentially suffer the most from high energy costs. In particular, we are concerned about those markets that depend on discretionary price-sensitive travel, except for those markets that will materially benefit from foreign visitors. The most significant issue for Fall 2008 and 2009 are proposed cuts in airline capacity. Current indicators are that at least 10% of domestic seats will be cut based upon early announcements and small airline liquidations. However, as fuel prices are expected to remain elevated, further cuts are likely, and will likely total at least 15% of capacity. US airlines are losing significant amounts of money on their domestic services due to the high cost of fuel. They otherwise have become quite lean in recent years after the fall-out from 2001, so they have limited opportunities for further efficiencies. They collectively appear to have come to the same conclusion that a significant system wide reduction in capacity is required in order to raise fares to sustainable levels. This will particularly impact routes to mass market leisure destinations, where operational losses are the greatest. Point-to-point routes between major business centers and convention destinations will be less impacted. Automobile travel would normally fill the void when airfares rise, but with rising gasoline prices, long distance automobile travel will also be prohibitively expensive for many.

Overall, hotels will experience declining occupancies nationally during the next couple of years. Airline capacity is unlikely to be substantially restored until fuel costs come down, which is unlikely before 2011, and even then we expect oil prices of around \$110 per barrel. High value business travel is likely to be maintained, but many companies will likely rein in travel costs where possible.

Counter to these trends is that US leisure travelers will increasingly take vacations domestically, particularly on short-haul trips. They will reduce their international travel, both due to unfavorable currency issues and high airfares. Therefore, hotels in close proximity to major urban centers should be less heavily impacted. In addition, those destinations like Manhattan, Washington DC, Chicago, South Florida, and California are likely to benefit from foreign visitors, particularly those from Europe, due to the significant decline in the US dollar relative to European currencies. High airfares will be less problematic to this group, since airfares will rise less against their currencies.

## Other Real Estate Impacts

**Green.** Green buildings, particularly for new construction, were already becoming the new standard for real estate even prior to the recent major run-up in energy prices. With energy prices at new highs, with little prospect for major relief, green buildings will be in even greater demand. In the future, some form of green certification is likely to be important for older existing buildings as well as for new construction. In addition to investment value enhancement, green buildings should offer significantly lower operating costs, which will provide a further competitive advantage for owner of green buildings.

**Construction Costs.** Global demand for commodities has had a significant impact on costs of construction materials in the past few years. Rising energy costs have also driven escalations in pricing for building materials that require extensive energy and/or that are imported from long distances. The falling value of the dollar has further impacted imported construction material costs. As a result, new construction has become quite costly and numerous projects are being shelved or postponed. Supply has therefore diminished as a risk in the current market environment, particularly for projects that would be completed in 2009 or 2010.

Construction costs in the US are not uniformly higher, however. With the collapse of the for-sale housing industry, demand for certain materials has actually declined. Particularly for those products sourced or manufactured in the US/NAFTA region, costs have declined. In particular, gypsum, lumber, glass and other materials used in residential construction have either declined or stabilized in cost. A key concern remains with steel prices, which are showing little sign of moderating.

As a result of these trends, markets where land is expensive and compels high-rise steel frame construction will likely experience restrained new construction over the next few years. From an investor's point of view, this will provide opportunities for rising rents. Markets where land costs allow for low to mid-rise wood frame construction will likely experience less restraint in new construction, and therefore more downward pressure on rents.

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