The University of Arizona’s 31st Annual Forecast Luncheon

Sponsored by J.P.Morgan

ECONOMIC OUTLOOK 2012-13

MARSHALL J. VEST
Director
Economic and Business Research Center

http://ebr.eller.arizona.edu/

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**Economic Outlook 2012-2013**

**ON THE ROAD TO RECOVERY**
- Recovery is underway and gaining momentum
- Strong headwinds continue to slow recovery
- Still facing a long road back

**STRONG HEADWINDS PERSIST**
- Hangover from financial crisis
  - Restrained credit growth
  - Eurozone’s sovereign debt and banking crisis
- Depressed confidence
  - Congress debt ceiling debacle, S&P downgrade, “Super Committee” failure
- Business spending and hiring “on hold”
- Housing woes
  - Distressed sales
  - Falling prices
- Population mobility - lowest since 1948

**RECOVERY UNDERWAY IN AZ**
- No longer bouncing along the bottom
  - Acceleration as 2011 comes to an end
- Measures showing improvement
  - Wages
  - Employment
  - Consumer spending
  - Housing markets

**PRIVATE SECTOR WAGES**
- Jumped by 5.7% in 2011Q1
  - In 2009Q1, wages fell nearly 2%
- Inflation-adjusted wages remain 2% below their peak
Economic Outlook 2012-2013

Wages Per Employee, AZ
Private Sector, QCEW

Nonfarm Jobs, TUS
seasonally adjusted

NONFARM EMPLOYMENT, TUS
- Grew by 1.9% Y/Y through September
- 6,800 new jobs - all private sector

CHANGES IN EMPLOYMENT (000s), TUS
SEPT 2010 TO SEP 2011

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Eller College of Management
Tucson, Arizona
CONSUMER SPENDING
- Consumers still facing a long list of negatives
  - but spending anyway
- Retail sales up 9.1% through October (Y/Y)
  - Led by grocery stores and motor vehicles
- Restaurant & bar sales have fully recovered
HOUSING FUNDAMENTALS

- **Positives**
  - Housing affordability at record highs
  - Pent-up demand is increasing

- **Negatives**
  - Credit access still hard
  - Foreclosures high and huge backlog
  - Half of AZ homeowners with mortgages have negative equity
  - Massive overhang of empty homes
  - Household formation at decades low
  - Employment growth is slow

HOUSING MARKETS

- **Existing homes sales are headed higher**
  - Strong investor demand

- **Inventories very lean**
  - 5-month supply in TUS

- **Foreclosures notices down 15% this year**
  - but still high

- **Delinquency rates still very high, over 10%**

- **Prices are still falling**

- **Little construction of new units**

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**Existing Home Sales, MLS**

000s units, seas adj annual rate

**Housing For Sale Inventory, MLS**

seas adj and smoothed, Metro Tucson

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Tucson, Arizona
Delinquency Rate Single-Family Residential Mortgages, AZ
seasonally adjusted

Home Price Appreciation
FHFA Repeat Sales Index
latest data: 2011q3

Home Price Appreciation
FHFA Repeat Sales Index
latest data: 2011q3

Single Family Building Permits
(seasonally adjusted annual rate, 000s)
**Multi-Family Building Permits**

(annual rate, 12-mo rolling sum, 000s)

**Residential Permits, TUS**

(annual rate, 12-mo rolling sum, 000s)

**DID POPULATION DECLINE?**

**Current and Prior Estimates**

Population, Metro Tucson
Births and Deaths, TUS
seasonally adjusted annual rate

Components of Population
Annual Change, Metro TUS

Annual Changes in Population
Metro Tucson

THE OUTLOOK
- Recovery in AZ is strengthening
  - No longer bouncing along the bottom
  - Most measures showing improvement
  - Acceleration as 2011 comes to an end
  - Still fragile, a lot of ground to make up
THE OUTLOOK

- Pace of recovery should accelerate into 2012 and beyond
  - Slow by historical standards, restrained by
    - Housing markets
    - Reduced mobility of population
    - Lack of confidence
    - Cautious spending and hiring
    - Drag from public sector
- By 2015, damage from recession will be repaired
- On the road and making progress...

DO CONSUMER’S HAVE ENOUGH WEALTH TO INCREASE SPENDING?

Growth in Household Net Worth Vs. Level of Household Net Worth

- Source: Bureau of Labor Statistics, Chicago Board Options Exchange
- Source: Bureau of Labor Statistics
- Source: Federal Reserve Board. Data as of Q2 2011
We are currently facing oversized volatility and uncertainty. For this reason, we believe that stocks are attractively priced from a historical perspective. Even if we go into a recession, stocks are still attractive and if we muddle through and don't go into a recession they are even more attractive. Prices should gravitate to fairer values when the outsized degree of uncertainty lifts.
**Economic Outlook 2012-2013**

**Uncertainty Has Also Permeated The U.S. Corporate Sector**

The degree of uncertainty extends to corporate behavior. Huge amounts of cash are sitting on corporate balance sheets while dividend payouts are hovering at low levels. A reduction of uncertainty and an increase in business sentiment would unleash animal spirits and lead to faster employment growth and faster economic growth. The problem is that achieving this state of nirvana will not be easy.

**Bubble Like Behavior In U.S. Treasury Markets**

Almost by any metric one uses — it appears that a bubble in long-term Treasury yields has been induced by the Fed’s Quantitative Easing and Operation Twist strategies should unwind at some point. This is a trend that will not last over the life of these long-term securities.

**Volatility Doesn’t Always Eliminate Positive Returns**

Although volatility is very unpleasant, the record shows that stocks can go up even during periods of elevated volatility.

**Is The U.S. Losing Control Of Its Future Destiny?**

Another ominous trend is that the United States is losing some control over its long-term destiny given the growing share of foreign ownership of its Treasury securities. It is hard to believe that the U.S. influence will remain as dominant as it once was if this trend persists.

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Tucson, Arizona
If no U.S. recession occurs, the wide spread between returns and default rates in this high yield corporate bond space is likely to remain favorable and continue to offer an attractive rate of return.

**Why High Yield Still Looks Attractive?**

**Historical High Yield Recovery Rates**

- Average: 30.4%
- Range: 0% - 90%
- Source: U.S. Treasury, J.P. Morgan, Moody’s, J.P. Morgan Asset Management

**Annual High Yield Bond Issuance**

- Billion USD

**Why Municipal Bond Yields Still Look Good?**

Despite the need for careful diversification and portfolio selection, municipal bond yields continue to offer an attractive rate of return relative to U.S. Treasuries.

**Muni/Treasury Ratio**

- Ratio of the ten year municipal bond yield to the ten year Treasury yield
- Source: FactSet, J.P. Morgan Asset Management

**State & Local Government Debt Service**

- Source: Bureau of Economic Analysis, J.P. Morgan Asset Management

**Emerging Market Debt is Becoming Much More Attractive Relative to Developed Market Debt.**

With this theme in mind, considering a well diversified portfolio of emerging market debt should pay off in 2012.

**The Tide Is Turning in Favor of Emerging Markets**

Emerging Market debt is becoming much more attractive relative to Developed Market debt. With this theme in mind, considering a well diversified portfolio of emerging market debt should pay off in 2012.

**Commodity Prices**

- Weekly index prices rebased to 100
- Source: Dow Jones/UBS, FactSet, J.P. Morgan Asset Management

**Oil Demand: Emerging Markets Share**


**Grain Demand: Emerging vs. Developed Markets**


Past performance is not indicative of future results.

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Yes, Gold has come a long way, but on an inflation adjusted basis, prices still can move higher. But to incorporate the sizable nominal price increases seen over the past couple of years, it may be advisable to purchase gold using instruments that offer downside protection buffers.

<table>
<thead>
<tr>
<th>Year</th>
<th>Troy Ounces</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>83.3 mm</td>
<td>$23 bn</td>
</tr>
<tr>
<td>2001</td>
<td>83.6 mm</td>
<td>$23 bn</td>
</tr>
<tr>
<td>2002</td>
<td>82.0 mm</td>
<td>$25 bn</td>
</tr>
<tr>
<td>2003</td>
<td>81.7 mm</td>
<td>$30 bn</td>
</tr>
<tr>
<td>2004</td>
<td>77.8 mm</td>
<td>$32 bn</td>
</tr>
<tr>
<td>2005</td>
<td>79.4 mm</td>
<td>$35 bn</td>
</tr>
<tr>
<td>2006</td>
<td>76.2 mm</td>
<td>$46 bn</td>
</tr>
<tr>
<td>2007</td>
<td>75.9 mm</td>
<td>$53 bn</td>
</tr>
<tr>
<td>2008</td>
<td>75.6 mm</td>
<td>$56 bn</td>
</tr>
<tr>
<td>2009</td>
<td>78.8 mm</td>
<td>$77 bn</td>
</tr>
</tbody>
</table>

Source: (Left chart) EcoWin, BLS, U.S. Department of Energy, Fastcall, J.P. Morgan Asset Management. (Right table) U.S. Geological Survey, World Gold Council, J.P. Morgan Asset Management. Consumer Price Index adjusted gold values are calculated using month averages of gold spot prices divided by the CPI value for that month. CPI is rebased to 100 at the start of the chart. Data reflect most recently available as of 9/30/11.

Countries caught between a rock and a hard place

United States is currently suffering from a bad case of the UN’s
THE UN'S
- UNEMPLOYABLES
- UNDERPERFORMING
- UNCERTAIN
- UNTRUSTWORTHY
- UNFUNDED
- UNSUSTAINABLE

THIS AFTERNOON
- Focus on the implications of our unsustainable budget policy
- Compare our budget situation to the debt crisis taking place in Europe

PUTTING THINGS IN PERSPECTIVE
- Germany is
  - 35% larger than France
  - 55% larger than Italy
  - 125% larger than Spain
  - 1000% larger than Greece
- United States is approximately
  - 400% larger than Germany
  - 4000% larger than Greece

HISTORY OF EUROPEAN UNION
- Maastricht Treaty 1992
  - Created European Union - 27 countries
  - Set date for adoption of common currency - the Euro
- January 2002 - 17 European Union countries adopt the Euro
A common currency presupposes a single government with fiscal and monetary tools to protect it and the political unity to do so.

The European countries that are in crisis have more government than their economies can afford.

<table>
<thead>
<tr>
<th>General Government</th>
<th>Central Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>67% GDP 59% GDP</td>
</tr>
<tr>
<td>France</td>
<td>57% GDP 25% GDP</td>
</tr>
<tr>
<td>Portugal</td>
<td>51% GDP 39% GDP</td>
</tr>
<tr>
<td>Italy</td>
<td>50% GDP 29% GDP</td>
</tr>
<tr>
<td>Greece</td>
<td>50% GDP 39% GDP</td>
</tr>
<tr>
<td>Germany</td>
<td>48% GDP 16% GDP</td>
</tr>
<tr>
<td>Spain</td>
<td>46% GDP 19% GDP</td>
</tr>
<tr>
<td>USA</td>
<td>40% GDP 25% GDP</td>
</tr>
</tbody>
</table>

All states had to have their financial houses in order
- Inflation at 1.5% or less
- Budget deficits at no more than 3% of GDP
- Debt to GDP ratio of less than 60%
WHO IS MEETING THE CRITERIA?

Debt as a percentage of GDP

- 60% criteria
  - Japan 225%
  - U.S.A. 94%
  - Greece 160%
  - Italy 120%
  - Ireland 95%
  - Portugal 93%
  - Germany 84%
  - France 82%
  - Spain 60%

WHO IS MEETING THE CRITERIA?

Deficit as a percentage of GDP

- 3% criteria
  - Japan 8.4%
  - U.S.A. 9.8%
  - Greece 10.5%
  - Ireland 10.0%
  - Spain 9.2%
  - Portugal 5.9%
  - France 5.7%
  - Italy 3.2%
  - Germany 2.5%

CRISIS COUNTRIES

- PIGS
  - PORTUGAL
  - IRELAND
  - GREECE
  - SPAIN
  - PLUS ITALY
ITALY

- Too big to fail - too big to bail
- Third largest economy in Europe
- Debt 120% of GDP

THE ITALIAN PROBLEM

- Do the math
  - Debt X interest rate = Interest on the debt
  - Debt 120% of GDP X 7% = 8.4% GDP debt service

- **8.4% OF GDP** needed to pay interest on debt

ITALY

- Problems
  - Aging and shrinking population
  - High risk premium on bonds
  - Second biggest debt in EU
  - Huge unfunded pension liability
  - Dysfunctional political system

WHY ISN'T U.S. ON CRISIS LIST?

- Gross debt ratio to GDP - 94%
- Deficit as a percentage of GDP - 9.8%
- Huge unfunded liabilities - $110 trillion
- Aging population
- Dysfunctional politics
**SOLUTIONS TO EURO CRISIS**

**HOBSON’S CHOICE**
- Work to meet criteria
  - Surrender budget sovereignty
  - Higher taxes
  - Major budget cuts
  - Liberalization of labor markets
  - Tolerate major recession
- Leave the Euro Zone
  - Default
  - Capital flight
  - Adopt old currency
  - Devalue old currency
  - Tolerate major recession

**CONCLUSION**
- Lessons from crisis
  - Never become a
    - High tax
    - Slow growth
    - Entitlement state
  - Because the inevitable day of reckoning will be
    - Nasty
    - Painful
    - And not short

**CONCLUSION**
- The Euro crisis could become our crisis
- We need **long-term solutions** to our debt and deficit problems now
- Not election cycle solutions

**GOOD NEWS**
- Our economy is improving very slowly
- We need to change the **UN’s UM’s**
YOUR ASSIGNMENT TO HELP IMPROVE THE ECONOMY

- Don’t go back to work today
- Go out …
  ... and shop shop SHOP!

Happy Holidays!