Petrodollars and the Cycle of Financial Bubbles

Here we go again

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A theory that denies what is happening can happen, sees unfavorable events as the work of evil outside forces (such as the oil crisis) rather than as the result of characteristics of the economic mechanism, may satisfy politicians’ need for a villain or scapegoat, but such a theory offers no useful guide to a solution of the problem.

... 

The economic instability so evident since the late 1960s is the result of the fragile financial system that emerged from cumulative changes in financial relations and institutions of the years following World War II.
Coincidence of High REAL Oil Prices with Financial Crises
Crises Severest 1850s-70s (before gold standard), and 1970s– (after Bretton Woods)
1 Reasonably Foreseeable Consequences
   - Real, Energy, and Oil-Revenue Cycles
   - Financial Imbalances and Petrodollars

2 Oil, Dollars, Debt, and Crises
   - Transmission Mechanism
   - Managing the Cycle
Reasonably Foreseeable Consequences
Oil, Dollars, Debt, and Crises
Real, Energy, and Oil-Revenue Cycles
Financial Imbalances and Petrodollars

Self-Perpetuating Cycle, Magnified during Financial Crises
Decline in Demand ⇒ Decline in Prices ⇒ Decline in Investment ⇒ Price Spike @ Recovery

![Graph showing World GDP growth and World Energy Use growth over time with annotations:]

- World GDP growth
- World Energy Use growth

-1 0 1 2 3 4 5 6 7
-1 0 1 2 3 4 5 6 7
Lag in Oil-Price Responses, Lag in Capacity Development
Geopolitical Events Cause Oil Prices to Over Compensate

Gold Prices
Crude Oil Prices

Gold Prices (left axis)
Crude Oil Prices (right axis)
The Oil Revenue (Petrodollar) Problem

Price stabilization ⇒ amplified oil revenue cycle

During the upswing of the cycle:

\[ \text{growth} \uparrow \Rightarrow \text{energy demand} \uparrow \Rightarrow \text{inventory} \downarrow \Rightarrow \text{oil price} \uparrow \]

- To ameliorate oil-price and real-business cycles, revenue cycle is amplified:
  
  \[ \text{oil production/sales} \uparrow \Rightarrow \text{oil revenues} \uparrow \uparrow \]

- ⇒ There is no “good price” to defend in the short run.

During the downswing of the cycle:

\[ \text{growth} \downarrow \Rightarrow \text{energy demand} \downarrow \Rightarrow \text{inventory} \uparrow \Rightarrow \text{oil price} \downarrow \]

- To ameliorate oil-price and real-business cycles, revenue cycle is amplified:
  
  \[ \text{oil production/sales} \downarrow (?) \Rightarrow \text{oil revenues} \downarrow \]

- Asymmetric response: OPEC members cheat on their quotas.

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The Oil Revenue (Petrodollar) Problem
Price stabilization ⇒ amplified oil revenue cycle

1. During the upswing of the cycle

   growth ↑ ⇒ energy demand ↑ ⇒ inventory ↓ ⇒ oil price ↑

   - To ameliorate oil-price and real-business cycles, revenue cycle is amplified
     
     oil production/sales ↑ ⇒ oil revenues ↑↑

   - ⇒ There is no “good price” to defend in the short run

2. During the downswing of the cycle

   growth ↓ ⇒ energy demand ↓ ⇒ inventory ↑ ⇒ oil price ↓

   - To ameliorate oil-price and real-business cycles, revenue cycle is amplified
     
     oil production/sales ↓ (?) ⇒ oil revenues ↓

   - Asymmetric response: OPEC members cheat on their quotas
The Oil Revenue (Petrodollar) Problem
Price stabilization ⇒ amplified oil revenue cycle

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   \text{growth} \uparrow \Rightarrow \text{energy demand} \uparrow \Rightarrow \text{inventory} \downarrow \Rightarrow \text{oil price} \uparrow
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   - To ameliorate oil-price and real-business cycles, revenue cycle is amplified
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   - ⇒ There is no “good price” to defend in the short run

2. During the downswing of the cycle
   \[
   \text{growth} \downarrow \Rightarrow \text{energy demand} \downarrow \Rightarrow \text{inventory} \uparrow \Rightarrow \text{oil price} \downarrow
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   - To ameliorate oil-price and real-business cycles, revenue cycle is amplified
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Price stabilization $\Rightarrow$ amplified oil revenue cycle

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   - $\Rightarrow$ There is no “good price” to defend in the short run

2. During the downswing of the cycle

   - $\text{growth} \downarrow \Rightarrow \text{energy demand} \downarrow \Rightarrow \text{inventory} \uparrow \Rightarrow \text{oil price} \downarrow$

   - To ameliorate oil-price and real-business cycles, revenue cycle is amplified

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OPEC’s Cheating Ways: Asymmetric Procyclical Effects
Price Overshooting: Lack of Excess Capacity in Booms, Cheating on Quotas in Busts
Reasonably Foreseeable Consequences
- Real, Energy, and Oil-Revenue Cycles
- Financial Imbalances and Petrodollars

Oil, Dollars, Debt, and Crises
- Transmission Mechanism
- Managing the Cycle
Limited Absorptive Capacity and Petrodollar Problem

I. Real Estate Bubbles

Crude oil price (left axis)

Real estate index (right axis)
Limited Absorptive Capacity and Petrodollar Problem

II. Stock Market Bubbles

Reasonably Foreseeable Consequences
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II. Poster-child bubble: Emaar Properties PSJC Share Prices
Financial Imbalances Amplified by Recycled Petrodollars
Contagion + Petrodollar Flows Have Contributed Substantially to Bubbles & Inflation

First petrodollar surge, 80s debt crisis
Second petrodollar Surge

China
Saudi Arabia + Kuwait
1980s Correction for Financial Imbalances
Revaluation of the Japanese Yen
Reasonably Foreseeable Consequences
Oil, Dollars, Debt, and Crises

Japan’s Lost Decade
Enabled ASEAN Export-Led Growth

Japanese GDP growth rate (%)

Chinese Strategy So Far
Continuation of Undervalued Currency
Beginning of the End for the Dollar Era?
Compare to British Pound A Century Ago + Geopolitically-Motivated Attacks on Dollar
Outline

1. Reasonably Foreseeable Consequences
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   - Financial Imbalances and Petrodollars

2. Oil, Dollars, Debt, and Crises
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Cyclical Petrodollar Recycling and Financial Crises

1. Procyclical feedback mechanism during booms

   growth $\Rightarrow$ oil price $\uparrow$ $\Rightarrow$ Petrodollar flow $\uparrow$ $\Rightarrow$ interest rates $\downarrow$ $\Rightarrow$ growth

2. Hubris (80’s: countries don’t go bankrupt; 00’s: house prices don’t fall!)

   Petrodollars $\uparrow$ $\Rightarrow$ interest rates $\downarrow$, asset prices $\uparrow$ $\Rightarrow$ leverage $\uparrow$ $\Rightarrow$ asset prices $\uparrow$

3. Eventually (Minsky moment; Ponzi finance)

   high cost $\Rightarrow$ slowdown $\Rightarrow$ bad loans $\Rightarrow$ Crisis or interest rates $\uparrow$ $\Rightarrow$ recession

4. Procyclical feedback mechanism during busts

   recession $\Rightarrow$ oil price $\downarrow$ $\Rightarrow$ Petrodollar flow $\downarrow$ $\Rightarrow$ interest rates $\uparrow$ $\Rightarrow$ recession

5. Recovery: low energy cost + expansionary policies $\Rightarrow$ growth $\Rightarrow$  

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Cyclical Petrodollar Recycling and Financial Crises

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5. **Recovery:**
   
   \[
   \text{low energy cost} + \text{expansionary policies} \Rightarrow \text{growth} \Rightarrow \text{recovery}
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The Laws of Supply and Demand Have Not Been Abrogated
American Consumers React to Retail Gasoline Prices
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China has a cycle too
Outline

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2. Oil, Dollars, Debt, and Crises
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   - Managing the Cycle
# Managing the Cycle

**Commodities Markets:** Speculators amplify the price/revenue cycle
- Reregulate commodity-derivatives markets
- Use strategic reserves to punish speculators
- Requires international cooperation

**Financial Markets:** Leverage makes bubbles possible
- Volcker rules against nonbank banks ++
- Stop bailouts for banks, *sukuk*, etc. ⇒ moral hazard
- Capital controls, sterilization of inflows

**Sovereign Wealth Funds:** Procyclical investment is unwise
- The primary mandate should be stabilization
- Middle East SWFs should lose money during boom
- Countercyclical financial and real options

**Middle East Economies:** Industrialize, differentiate to integrate
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