SOME ISSUES WORTH THINKING ABOUT RE THE OPERATION OF VIRGINIA PORT AUTHORITY TERMINALS

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"You don't know who's swimming naked until the tide goes out."

-- Warren Buffett

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- **First, let me establish that I regard the privatization of port operations in Virginia as a very discussable idea. I suggested this in an opinion piece in the *Virginian-Pilot* on 24 June 2007. After all, portions of 35 ports in the U.S. are privately operated. 56% of TEUs internationally are handled in ports with private operators. This tells us that we should look closely at proposals for privatization of port operations.**

- **But, God is in the details on matters such as this. And, the most important details in the three outstanding proposals are largely unknown to the public at large, including me.**

- **The three proposals need to be laid side by side with a fourth option---not accepting any of them and keeping the port. We need to project current arrangements forward 60 years and rigorously evaluate how valuable this would be for Virginia. If such a study already has been done, then it has not yet been made public.**

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Focusing on Benefits for Virginia

- Let’s recognize that the VPA and VIT enjoy good reputations and other port authorities often voice envy for Virginia’s current organizational quasi-public structure, operational skill and relatively smooth labor relations.
- Hence, there must be observable, countable benefits that are greater than costs if we are to change things.
- There are some basic issues and principles that we should consider as we arrive at what would be a momentous decision with profound implications for the future.

Possible Benefits from Private Operation

- Reduced Costs
- Increased Cargo Throughput Speed
- Increased Business Volume (private operator can attract new business)
- Stimulate Virginia Businesses
- Attract Higher Value Cargoes
- Additional Investments in Equipment and Infrastructure
- Additional Tax Payments

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- But, we also need to recognize that much international cargo today is not really in play.
- E.g., It’s 3470 miles from London to New York City, but 3743 miles from London to Norfolk. NYC always will have a locational advantage for certain types of cargo coming from Northern Europe. Private operation will not change this.
- New Orleans always will have certain advantage with respect to grain and Miami with respect to the Caribbean.
- Hampton Roads is well situated for coal shipments.

- Most bulk cargo traffic is unlikely to change ports in the absence of major changes in economic circumstances.
- TEU traffic is different, though my guess is that perhaps only one-third of TEU traffic may actually be movable from one port to another without major changes in current economic circumstances (primarily costs).
- How will private operation help us attract the approximately one-third of TEUs that can be moved?

Can a Private Operation/Partnership…

- **Lower costs? Perhaps. A Baltimore example of constructing a warehouse. 20% less expensive? Avoid Davis-Bacon and prevailing wages? Remember, these will be Virginians receiving the lower wages.**

  In order to earn a respectable rate of return on its investment, will a private operator have to raise prices and fees? One must ask in a straightforward fashion---precisely how will the private operator make money on its investment? And, if it is the form of higher prices and fees, is it Virginians or non-Virginians who will pay? From the standpoint of Virginia, it should matter *who* pays.

- **Increased speed/efficiency? This certainly is a possibility, but how will this occur? Smarter workers, better managers, better equipment, improved intermodal infrastructure?**

  Such improvements do not happen via magic. What precise investments in workers, managers, equipment and infrastructure will the private operator make? When will these occur?

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- Increased Volume of Business? There is some evidence from other ports that certain private operators can bring some business from specific carriers with them. What have our three bidders promised?

- Stimulate Virginia Business? To the extent that a private operator lowers costs, increases speed, and improves infrastructure, Virginia businesses and their customers will benefit. Employment will increase and customers will pay less for items ranging from automobiles to bananas. Tax collections will rise. However, are prices and fees going to increase over the years and, if so, how much and when?

- Attract Higher Value Cargoes? The theory here is that high value cargoes spin off more jobs with higher wages. Bulk cargoes historically haven't required as much labor and probably don't qualify here. Further, once we are talking about TEUs, it's not so clear that a TEU with pricey technology items will generate more economic smoke than a TEU filled, say, with cotton socks. Regardless, can a private operator help VPA attract higher value cargoes?

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- **Investments in Port Equipment and Infrastructure?** Most of the desirable cost and speed developments just discussed depend upon significant port investments.

  How much are they? When? How long will they last? Who owns them? Do they require matches and complementary investments from the Commonwealth (e.g., in highways and bridges/tunnels)?

Looming Above All This is the Degree of Risk

- **Evaluating Systemic vs. Non-Systemic Risk**

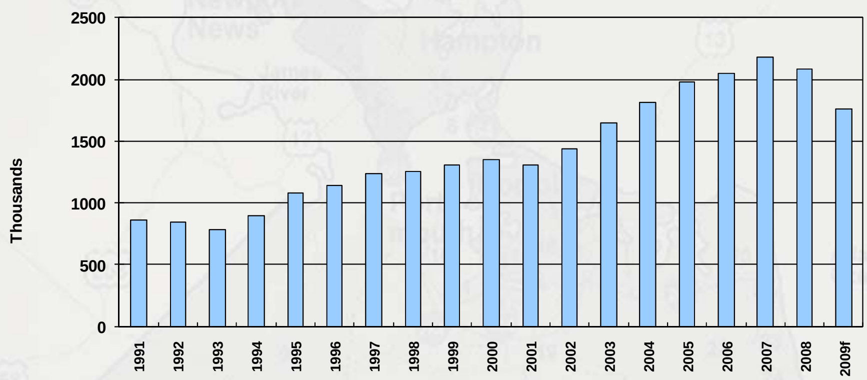
  We've learned over the past year that the world is a much more risky place than many believed.

  There is *systemic* (economy-wide) risk and *non-systemic risk* (associated with a specific firm or operator) that Virginia must take into consideration.

- **When the entire world economy goes into the ditch (this is systemic risk that we can't control), then port traffic and business are visibly diminished.**

- **E.g., Hapag Lloyd of Germany (sixth largest container fleet in the world) is attempting to obtain an emergency $427 m. loan to stay afloat and another $2.0 b. in capital to ensure future survival.**

Twenty-Foot Equivalent Container units at the Port of Hampton Roads, 1991-2009



Source: Virginia Port Authority and Old Dominion University Economic Forecasting Project

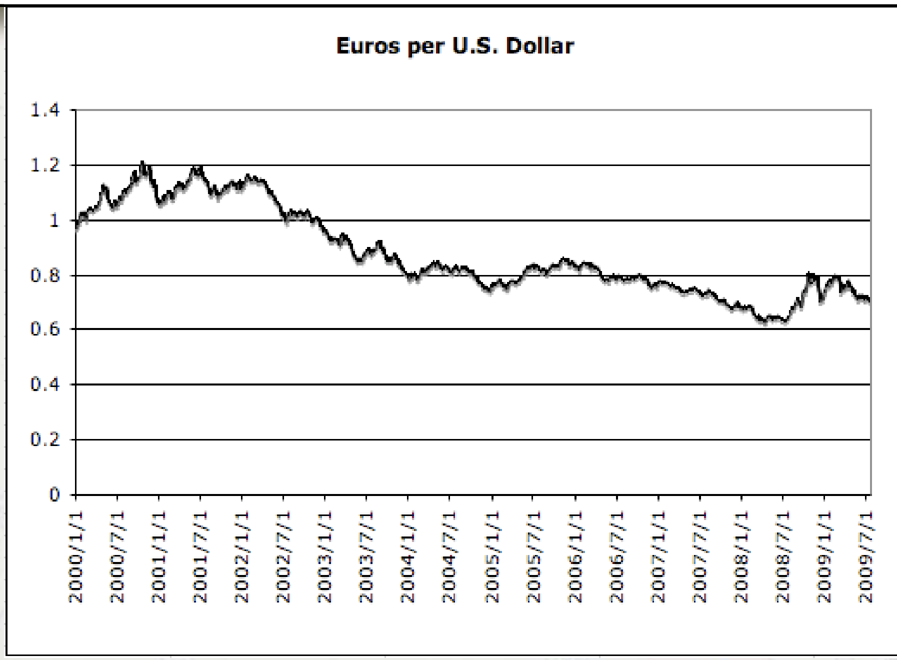
Systemic Risks We Face in Virginia

- **Continued World-Wide Economic Decline**

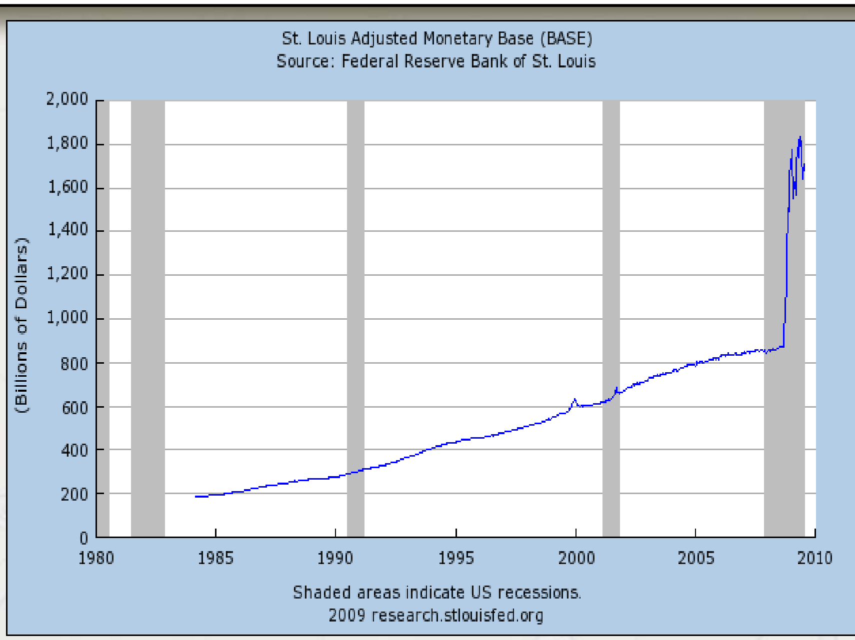
- **Declining Real Value of the U.S. Dollar** (what will the dollars that Virginia receives from a private operator be worth in the future?) There are two major uncertainties to consider here---the foreign exchange value of the dollar and the effects of future price inflation.

What Will Happen to the Value of the U.S. Dollar?

- The value of the U.S. dollar has been tanking. Will this be true for 60 years? That's unlikely. However, for the next few years, the value of the U.S. dollar is quite likely to suffer because of: (1) the huge deficits the U.S. Government is running that require it to borrow literally trillions of dollars; and, (2) significant increases in the money supply.



Source: Federal Reserve Economic Data



The Effects of Price Inflation

- The Federal Reserve will have to be very timely and very clever for this huge surge in liquidity not to result in significant price inflation in the future.

- One of the three proposals has proposed a 60-year deal. What will happen to the CPI over that time? Perhaps the past 60 years are a guide. Let me show you a picture that might help us understand the issue.

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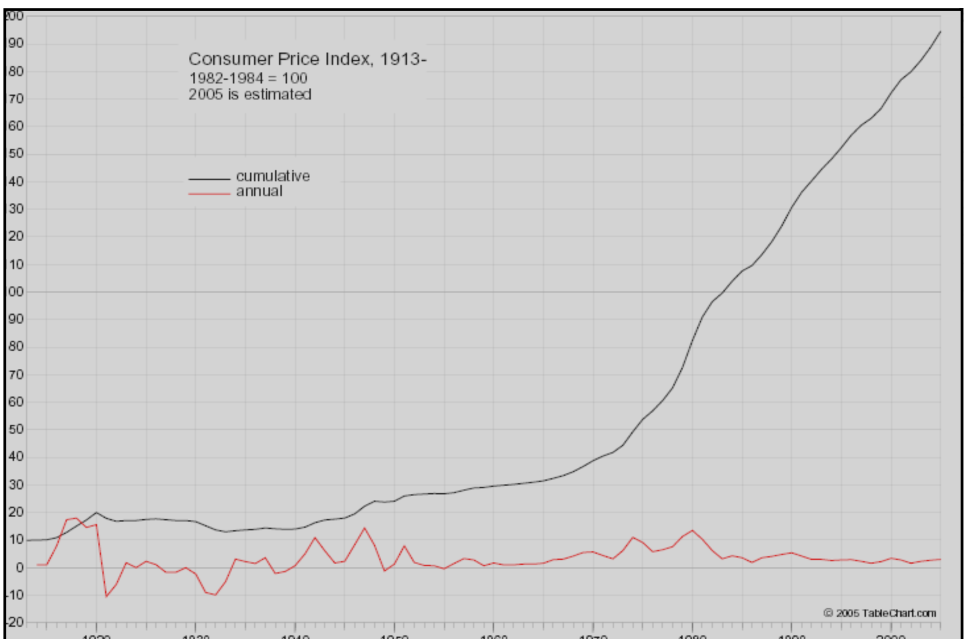

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What Do Those CPI Changes Mean?

- The purchasing power of $1.00 in 1949 has declined to 11.3 cents in 2009. Or, turning this around, it now takes $8.79 in 2009 to purchase the same thing that cost $1.00 in 1949.

- That's something to bear in mind as we evaluate proposals. Future revenues received from a private operator may not be worth very much.

Non-Systematic Risk (Private Operator Risk)

- Let's suppose the Commonwealth contracts with a private operator to run its ports. What is the chance that this firm will do one of the following:

  * Go broke
  * Default
  * Commit fraud
  * Not meet performance standards

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- **A few years ago, prior to the insolvencies of firms such as Lehman Brothers, Merrill Lynch, and AIG, we might have been inclined to say** *"the chances of this are almost zero."*

- **We now know that these things can and do happen. Our port evaluation must take this into account.**

- **One of the ways we do this is via** *"discounting."*

- **What is "discounting?" It is the process of taking into account the reality that money one has in hand today is worth more than money that one won't receive until, say, 10 years from today.**

- **After all, if I have $1.00 in hand today, I can invest it, say at 5%, and it will be worth $1.05 one year from today. This means that the "present value" of $1.05 that I won't receive for one year is only $1.00 today (if there is no risk). In general, present value = $/(1 + r), where r is the rate of discount. So, $1.05/(1+ .05) = $1.00.**

- **The farther away money is in time, the less it is worth today. Its** *"present value"* **is smaller.**

- **Practically speaking this means that $1 million that I won't receive until 20 years from today is not nearly as valuable as having that $1 million in hand today. So, that future $1 million has to be** *"discounted,"* **or deflated.**

- **The discount rate that we actually chose (5%, 10%, or whatever) to deflate future dollars should take into account the best alternative use we have for the funds in question (i.e., what we could earn elsewhere—usually labeled the** *"opportunity cost"* **of the dollars). To this, we need to add allowances for all applicable risks---insolvency by the private operator, price inflation that eats away at the value of the dollar, economic depression, etc.**

What's the Appropriate Rate of Discount Here?

- On 28 July, the 30-year U.S. Government bond yield was 4.55%. Since U.S. Govt. bonds are virtually riskless, this is the absolute minimum discount rate one could possibly choose in this situation.
- If we add a *"risk premium"* to this to recognize the uncertain things that could happen to the U.S. economy, the U.S. dollar, prices, the ports, and the private operator itself, then we must choose a much higher rate of discount than 5% to deflate the projected future revenues and costs.

- It is not unusual for private investors to apply a discount rate ranging between 10% and 20% to their investments.

- I have prepared five simulations to see what difference assumptions such as this make.

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- Since detailed data concerning the three proposals have not yet been made public, I have chosen representative numbers for my examples. Needless to say, greater project transparency would yield more valuable and precise modeling.

- I present five different models for comparison. Note that it is the relative magnitudes of the dollars in each model rather than their absolute amounts that are the key. They demonstrate how different assumptions change how attractive a deal might be.

- Let's begin with a "no worries" scenario in which both revenues and costs are smooth over the next 60 years and we discount these dollars only at 5% (essentially saying that there isn't much default risk, economic decline, price inflation, or dollar depreciation attached to this project). This probably isn't the way revenues and costs actually will look, but it will illuminate the issues for us.

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- **We examine the five handouts here.**

Let's Summarize the Results

• **Model One**: Smooth Benefits, 5% Discount	**$3.786 b.**
• **Model Two**: Smooth Benefits, 5% Disc., Inv.	**$3.837 b.**
• **Model Three**: Smooth Benefits, 10% Disc., Inv.	**$1.996 b.**
• **Model Four**: Delayed Benefits, 10% Disc., Inv.	**$1.075 b.**
• **Model Five**: Smooth Benefits, 15% Disc., Inv.	**$1.333 b.**

What Do These Exercises Tell Us?

- The project payoff is extremely sensitive to the rate of discount. When realistic risk premiums are attached to the revenues and costs, the value of the project declines dramatically.
- If benefits are delayed, the payoff falls substantially. If benefits are received more quickly, then this improves the project payoff substantially.
- Even if VPA port facilities are enhanced by $1.0 billion and Virginia inherits those improvements 60 years later, the present discounted value of those improvements (seen from 2009) is quite low and does not exceed $51 million.

The Bottom Line

- There is a sufficiently attractive price and there are sufficiently attractive conditions that would make the privatization of port operations an attractive proposition for the VPA and Virginia.
- Virginia needs a rigorous assessment of the three proposals versus the unstated fourth option---keeping the ports.
- The degree of uncertainty and risk involved, however, are substantial for all *four* options. Who can predict what conditions will be 40 or 60 years from today? Who among us would have predicted that last year oil prices would rise to $147 per barrel and then fall below $40 per barrel?

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- My understanding is that the VPA has the power to decide whether or not to privatize the operation of Virginia's ports. Given the many different uncertainties and risks involved, by all odds the VPA ought to:

  (1) be very careful in assessing the revenues, costs and risks associated with each proposal;

  (2) utilize a realistic rate of discount much higher than 5%;

  (3) rigorously compare the three proposals to the option of keeping the ports; and,

  (4) if it decides to go forward, negotiate a much better deal than any that has been hinted at publicly thus far.

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