Republicans are hoping the bankruptcy of solar panel manufacturer Solyndra will create a Watergate-like scandal for Democrats. The GOP is looking to spin a story of cronyism costing taxpayers $535 million in loan guarantees. Administration officials maintain Solyndra’s problems were due to a global collapse in the price of solar energy components, suddenly causing innovative products to cost more to make than they could promise to earn.

Both sides acknowledge a more robust analysis might have prevented such a loss. Shyam Mehta, a solar energy industry analyst at GTM Research observes, “There was just too much misplaced zeal at the Department of Energy for this company.”

Misplaced zeal could certainly describe liner shipping. The shipping industry frequently experiences overcapacity; multiple carriers all expect to capture (the identical) portions of business growth. The problem seems to have spread to U.S. East Coast ports seeking to attract the larger vessels that will transit the Panama Canal after new, larger locks open in 2014.

The expanded canal will certainly be a global game-changer. The Panama Canal Authority undertook this expansion to ensure it remained relevant in global transportation, of which container shipping represents just one of six business segments. East Coast ports, however, are unlikely to uniformly enjoy the canal’s gain: more traffic in bigger ships. Just like their carrier “customers,” many ports believe they alone will prosper after the canal’s expansion; they expect to cannibalize large amounts of volume from their competitors.

History shows this isn’t likely. Although volumes have grown dramatically, port rankings have remained basically unchanged for more than a generation, as the accompanying charts demonstrate. Charts 1 and 2 (see page 73) show the clear pre-eminence of the ports of San Pedro — Los Angeles and Long Beach — and New York-New Jersey on the West and East coasts. While the West Coast shows a more status quo situation (Seattle-Tacoma has remained a steady second), the East Coast shows a more tumultuous situation, with Savannah emerging as the East Coast’s No. 2 port only in the last three years.

Most port expansion plans rely on attracting discretionary intermodal rail. Chart 3 (see page 73) analyzes this market.

Cargo to coastal regions (Southeast to Southeast, for example) is handled primarily through ports in their regions or from the West Coast. While the east-west markets are well developed, north-south intermodal (Southeast to Northeast) is rare and unlikely to change. Given vessel economics, there seems no business case for moving marine containers by rail from Florida to New York.

Rail from the West Coast is the overwhelming mode of service for the South Central region, predominantly Texas. Other than all-water service to local points around Houston, trans-Pacific traffic likely will remain concentrated in the San Pedro ports because of transit and cost advantages. Data showed almost no traffic discharged in Mexico.
Rail from the West Coast likewise is the dominant service mode to the Midwest, which ranges from Kansas to Ohio. Rail volume from the East is predominantly from the Northeast and eastern Canada, reflecting the shortest rail distances. The ports of New York-New Jersey, Norfolk, Montreal and Baltimore will battle for this cargo, but New York’s pre-eminence seems difficult to overcome.

Larger vessels can generate line-haul savings only if they are moving, and not sitting in port. Chart 4 (see page 73) shows the correlation between vessel size and port calls. As 6,000- to 8,000-TEU vessels deploy to the East Coast after 2014, the same port call concentration would be expected. Larger vessels, making fewer port calls, further reduce the likelihood of one port poaching intermodal cargo from another.

The order, as well as the number of port calls is significant. Chart 5 (see page 73) examines this relationship on the West Coast.

Imports are handled predominantly through California ports, with San Pedro (26) and Oakland (19) having more port calls than the rest of the coast combined (17).

Although all five ports have at least one vessel string calling there first, the average order for San Pedro (1.23) is lower than that of the others, indicating a clear preference for making it the primary first port of call.

Consequently, San Pedro is also the gateway for intermodal cargo; intermodal is usually discharged at the vessel’s first port of call.

**ALTHOUGH VOLUME HAS GROWN DRAMATICALLY, PORT RANKINGS HAVE REMAINED BASICALLY UNCHANGED FOR MORE THAN A GENERATION.**

Barring self-inflicted problems, which aren’t without precedent, San Pedro is unlikely to relinquish its intermodal leadership. Not only does it have the best infrastructure, it’s also the only North American location offering viable rail service to all major inland destinations: Atlanta; Chicago; Columbus, Ohio; Dallas; Kansas City, Mo.; Memphis and New York.

Chart 6 (see page 73) examines the more diverse East Coast situation. Of eight major ports, only four serve as a first port-of-call. Although Savannah has the most import calls, New York has a significantly higher priority (1.43 vs. 2.78). Norfolk — always the bridesmaid, it seems — is the most consistent. Every service calls there second.

Intermodal routings are unlikely to change. Most carriers have made long-term marine terminal volume commitments that couldn’t be met if intermodal cargo were...
rerouted. Many also have made investments that would be devalued by diversion. While incremental changes might occur over time, rail service is problematic without large volumes every day of the week. Most carriers will view this as a reason to be the second carrier to change.

The ecosystem also has changed. Thirty years ago, railroads and ports encountered success and failure as a pair. That’s no longer the case. Because eastern railroads now serve all East Coast ports, they are basically indifferent to customer traffic shifts between ports. It’s also hard for ports to compete individually; so many entities contribute to port costs — port authorities, local governments, marine terminal operators, stevedores and pilots — that it is very difficult to create a cohesive market response.

The Panama Canal expansion is noteworthy for the canal authority’s can-do approach to infrastructure investment, something until now largely missing in this hemisphere. The expansion eliminates a potential bottleneck, and assures growth won’t be constrained, and it allows larger vessels to deploy in all-water service.

But will economies of scale change network flows? A similar game-changer in the air cargo industry has turned out to be a non-event. Deployment of the Airbus A380 greatly reduced airport choice to a few large hubs. Still, volume to non-A380 airports hasn’t changed significantly. Here, market rates have been driven by economics, not engineering.

The same phenomenon will occur post-2014. Shippers, not carriers, route cargo. Ocean shipping rates are market-driven, not price-driven. The ocean industry likely will have rotations characterized by larger and fewer vessels, deployed through fewer ports and concentrated around existing routes.

Ports counting on transformational change should be very careful with the public’s money. Otherwise, expect something eerily reminiscent of the Solyndra hearings, as state and national governments try to make the ports answer for their failed investments.

Ted Prince is principal, T. Prince & Associates. Contact him at ted@tpassociatesllc.com.

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CHART 1
WEST COAST CONTAINER TRADE
In millions of TEUs

CHART 2
EAST COAST CONTAINER TRADE
In millions of TEUs

CHART 3
EAST COAST VOLUME 1990-2010
Units (000,000)

CHART 4
EAST COAST VOLUME 1990-2010 (Alternate View)
Units (000,000)

CHART 5
ISO RAIL VOLUME 1990-2010

CHART 6
TRANS-PACIFIC VESSEL SIZE: PORT CALLS
North American Import Port Calls

Source: IANA, 2011 ETSO

Source: Drewry, 2011 Q1