A North American Transportation Infrastructure Strategy

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ABSTRACT

This paper examines efforts in the US to create a national transportation infrastructure policy. It suggests that, historically, rivalry among states, the role of private companies facing a weak federal government and fears of federal government intervention were the main inhibitions to such a policy - except in rare periods when national security seemed at stake.

The North American economy can best be visualized in the early 21st century as a deeply integrated continental system, a system that is structured by networks linking production centers and distribution hubs across the continent. These linkages rest on ties to business, communities and local and state-provincial governments. These linkages are dependent upon an efficient and secure physical infrastructure of rails, roads and bridges, pipelines and wires, ports and border crossings.

Today, however, our transportation and border infrastructure barely suffices to support an expanding North American economy. We have relied too long on aging infrastructures and traffic management systems in all transportation modes, and there are still too many public policy and regulatory barriers to effective adaptation of the transportation system. Indeed, national regulatory systems affecting transportation systems often work at cross-purposes.

What this means is that the ability of North American firms to extend and even maintain cross-border supply chains may be at risk

INTRODUCTION

In the 1980s, deep changes were under way in corporate structure in North America. Many major US companies responded to tougher international competition and falling profit margins by rationalizing their operations and reducing excess capacity tied up in Canadian (and Mexican) branch plant “miniature replica” operations. They built integrated North American production, marketing, and sourcing networks.¹

Changes in North American markets also drove this process. By the mid-1980s, because of the reduction of trade barriers in the GATT and deregulation distinct national markets in many sectors had begun to blur. Subsidiaries were becoming operations in Canada or Mexico rather than operations producing for Canada and Mexico, and branches that once owned national markets found themselves competing in new continental markets with other divisions in their own firms.

NAFTA, we suggest, was in large measure a response by governments to these developments already underway. NAFTA sought to bring the regulatory environment in line with which was already taking place in the North American economy. In many sectors – not all, of course – NAFTA encouraged freer market forces.

In the 1990s, after NAFTA was signed, flows of goods and capital across North America’s internal borders increased dramatically. More and more of the movement of goods was intra-company, reflecting the deepening of cross-border production, distribution and supply systems. With modest government involvement, companies worked out their own strategies for building new continental systems and solved problems themselves as they arose.

The North American economy can best be visualized as a deeply integrated continental system, a system that is structured by networks linking production centers and distribution hubs across the continent. These linkages rest on ties to business, communities and local and state-provincial governments. These linkages are dependent upon an efficient and secure physical infrastructure of rails, roads and bridges, pipelines and wires, ports and border crossings.

Today, however, our transportation and border infrastructure barely suffices to support an expanding North American economy. We have relied too long on aging infrastructures and traffic management systems in all transportation modes, and there are still too many public policy and regulatory barriers to effective adaptation of the transportation system. Indeed, national regulatory systems affecting transportation systems often work at cross-purposes. What this means is that the ability of North American firms to extend and even maintain cross-border supply chains may be at risk.

“INTERNAL IMPROVEMENTS”: HISTORY AND CIRCUMSTANCE

A national transportation infrastructure strategy is not a new idea in the United States but has always been a hard sell.

In 1808, Albert Gallatin, Thomas Jefferson's Secretary of Treasury, pointed out that the most efficient route for transporting goods from Pittsburgh to Philadelphia (some 300 miles apart by land) was a 3,000-mile voyage down the Ohio River to the Mississippi, through the Gulf of Mexico and up the Atlantic coast.

Gallatin proposed an ambitious scheme for uniting various local, state, and federal efforts to create the first National Road. He persuaded Congress to allocate the money for the creation of a limited National Road to the Ohio Valley from the sale of public lands in the new state of Ohio. Congress authorized the construction of the National Road, but Gallatin's vision was not realized.

One problem was that most leaders from Jefferson to Jackson were skeptical of the idea of funding road projects with federal money. President Madison, in his annual message to Congress in 1815, stated “among the means of
advancing the public interest the occasion is a proper one for recalling the attention of Congress to the great importance of establishing throughout our country the roads and canals which can best be executed under national authority...requiring national jurisdiction and national means.”. But, he said, a constitutional amendment would be required to give the federal government the authority to do this.

Powerful political figures such as Henry Clay from Kentucky (Speaker of the House of Representatives, senator and three-time candidate for president) would expand on Gallatin's idea, promoting what he called the "American system" of "internal improvements." A little later, Senator John Calhoun called elegantly for the federal government to launch a program of internal improvements. “Let it not be forgotten,” he said, “let it be forever kept in mind, that the extent of the republic exposes us to the greatest of calamities – disunion. We are great, and rapidly - I was about to say fearfully - growing. This is our pride and danger, our weakness and our strength... Whatever impedes the intercourse of the extremes with this, the center of the republic, weakens the union... Let us, then, bind the republic together with a perfect system of roads and canals. Let us conquer space.”

But when it came time to vote on Calhoun's proposal, the House of Representatives (in George Dangerfield's words) “did not reveal nearly as much scruple as it did self-interest.” Local interests opposed the creation of a national infrastructure policy.

New England was opposed because her roads were relatively good, because she feared a western migration of her people, and because she considered that the measure would promote the commerce of New York, Philadelphia, and Baltimore. The South was largely opposed.... presumably because she thought that other sections would benefit more than herself. The West was oddly and inexplicably uncertain. Only from New York and Pennsylvania came almost unanimous support: from New York because she still hoped for federal aid in building an Eric Canal, from Pennsylvania because she believed that Philadelphia could reach the South by way of a Chesapeake and Delaware Canal and that Pittsburgh would profit immeasurably in the West by opening the falls of the Ohio to navigation.

Moreover, private interests soon came to dominate the new transportation industries. By the 1840s and ‘50s, innovations in transportation – first steamships and then railroads – were controlled by private firms.

This is not to say there was no government participation. Governments provided vast sums of investment capital. But companies – and railroad companies in particular – proved highly efficient at taking public funds but avoiding any sort of public regulation or control. America's weak governments were no match for emerging giant companies.

And always, of course, there remained fear of an interventionist federal government. Again, quoting Dangerfield, the Cumberland Road legislation of 1822 “opened, to thoughtful minds, alarming vistas of future federal invasions of the

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3 Dangerfield, p. 19
states, invasions armed with contracts and subsidies and penalties and all the panoply of consolidation.”

What emerged in the United States were transportation systems dominated by private and local interests – and often the subject of violent controversy among these interests. This pattern in the US stands in clear contrast to that in Europe where modern railway systems were seen as critical elements of national military and defense requirements. The exceptions in the US – the building of the transcontinental railroad in the 1860s and the creation of the Interstate Highway System in the 1950s – came in the relatively infrequent moments (until then, at any rate) when national security interests trumped local interests.

**CHANGING DIRECTIONS: FROM EAST-WEST TO NORTH-SOUTH**

The development of modern transportation systems in the United States was a response to the opening of the West and the creation of an integrated Atlantic to Pacific economy. The Interstate Highway System was designed to facilitate the movement of goods across the country by linking cities with populations of 50,000 or greater. Like the railroad network that preceded it, there were far fewer North-South than East-West routes.

In the 1980s, the volume of north-south movement of goods increased rapidly. This is the beginning of a new North American economic system driven by changes in the structure of many major US (and Canadian) firms. These companies responded to tougher international competition and falling profit margins by rationalizing their operations and reducing excess capacity tied up in Canadian (and Mexican) branch plant “miniature replica” operations. To replace the old system of branch plants, they built new integrated North American production, marketing, and sourcing networks.

Changes in North American markets drove this process as well. By the mid-1980s, because of the reduction of trade barriers in the GATT and deregulation, distinct national markets in many sectors had begun to blur. Subsidiaries were becoming operations in Canada or Mexico rather than operations producing for Canada and Mexico, and branches that once owned national markets found themselves competing in new continental markets with other divisions in their own firms.

With the collapse of oil prices in 1982, both Ottawa and Mexico City realized that hopes of using the windfall profits from oil revenues to build new national economies that would be more autonomous from the US were dashed. Indeed, it was clear that a decade of economic nationalist policies had not slowed the growth of trade and investment linking the US and the Canadian and Mexican economies. Faced with mounting debt and economic chaos, Canada and then Mexico opened the door to a new trade accommodation with the US.

NAFTA then can be seen as a response by governments to these developments already underway in the real economy - the three governments

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5 Dangerfield, p. 199
7 The model for integrated production systems was the Auto Pact signed in 1965, although this was a response to the particular needs of the auto industry. On the process of rationalization, see Blank and Haar, Op. Cit.
acknowledged the level of integration that already existed and sought in particular to reassure entrepreneurs and investors that governments would no longer (at least in most sectors) seek to inhibit deepening trade and investment relations. NAFTA did not offer a North American vision. Rather it was viewed fundamentally as an effort to bring trade rules up to date with developments already underway in the North American economy.

After 1994, the volume of goods moving across North America’s internal borders increased dramatically. But NAFTA did not anticipate that a larger and larger share of these goods would move within companies—not finished products but components, parts and materials. What this represents is not an increase in trade in classic terms (that is, the exchange of finished goods) but the creation of integrated North American production, supply and distribution systems—what economists call deep or structural integration. Increasingly the North American economy came to be defined by the existence of complex cross-border supply chains.

The elaboration of these increasingly continental supply chains depended on efficient transportation systems. Throughout the 1990s, transport supply industries responded to the demands of users to enhance efficiency and reliability.

Building this North American economic system was very much a bottom-up process, driven largely by firms and markets. Trade liberalization in the GATT and the impact of the collapse of oil prices on Canada and Mexico made changes in the structure of business in North America both necessary and possible, but the process itself was the result of strategies put in place by many individual companies. The flexibility of this process, with little government control, encouraged rapid economic growth and job creation in many integrated industries.

NAFTA AND TRANSPORTATION

Negotiating the transportation provisions in the NAFTA agreement was contentious, focusing largely on regulatory harmonization. Many of the most contentious issues were not resolved, including immigration restrictions that affected crews; harmonization of vehicle weights and dimensions and other such standards applying to transport capital equipment; cabotage provisions preventing the free movement of transport entities carrying domestic cargo within each of the countries in the NAFTA geographic area; and full liberalization of investment restrictions on NAFTA-based investors in transportation operations. As Mary Brooks observes: “NAFTA provided no commitment to a global North American transportation system, funded by the three federal governments (or even each country’s federal government funding roads on its own territory). Nor did it create any agency mandated to assess transportation infrastructure maintenance or future requirements.”

NAFTA did put in place some 30 Working Groups and Committees. Their purpose was to facilitate trade and investment and ensure the effective implementation and administration of NAFTA. Key areas included trade in goods, rules of origin, customs, agricultural trade and subsidies, standards, government procurement, investment and services, cross-border movement of business

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8 See Mary Brooks, “NAFTA and Transportation: A Canadian Scorecard,” Centre for International Business Development Dalhousie University (Research Paper 177, August 2000)
people, and alternative dispute resolution. The Working Groups and Committees also provided an apolitical arena for the discussion of issues and, through early dialogue on contentious points, the possible avoidance of disputes. Several dealt with transportation.

The mandate of the Land Transportation Standards Sub-Committee, for example, was to make more compatible the three countries' relevant standards-related measures on bus, truck and rail operations, and transportation of dangerous goods. LTSS created working groups on Driver and Vehicles Standards, Vehicle Weights & Dimensions, Traffic Control Devices, Rail Safety and Dangerous Goods/Hazardous Materials Transportation. The Transportation Consultative Group 4 prepared an “Initial Five-Year Plan for Increased Cooperation in the Field of North American Transportation Technologies.” The Plan outlined four stages of implementation: create and maintain a "knowledge base" on transportation R&D in each nation; increase contacts between the three transportation R&D communities; identify gaps in existing transportation technology and R&D activities where successful efforts would bring benefits to all three nations; and develop collaborative research proposals that could successfully fill these gaps.

What can we say about the impact of the Working Groups and Committees? Have they had any traction in the regulatory process? Have their recommendations led to policy changes? Or have they been “talking shops” that come up with great ideas but must rely upon political champions to support these changes within the national political systems?

Little has been written on this aspect of NAFTA. Stephen Clarkson, a well-known Canadian scholar, and his colleagues are completing a larger project on the subject. They observe that the Working Groups were "circumvented and under-utilized and generally have not presented themselves as effective continental mechanisms for dealing with issues that arise between the U.S., Canada and Mexico under the ambit of NAFTA... This has, in turn, reduced the activity level of the majority of the groups; and it has limited the scope of the committees and working groups' agendas." The failure of the Working Groups to be more useful, they argue, is related at least partly to problems, which have arisen from the incongruity between the working groups' trilateral nature and the continuation of a strong dual-bilateralism in North America.

It is too early to second-guess these conclusions. But the notion that trilateral cooperation is problematic, even destined to fail, from the start seems overly pessimistic. The issue, we feel, may be more the problem of execution than of design.

In transportation, this leads to a wide range of questions about what role, for example, the three departments of transportation are seen to play in each federal government, how they are organized and so on. Second, the work carried out on transportation was not without some success.
We should really look at this in terms of three distinct sets of issues. As noted above, work on regulatory harmonization, while failing to reach agreement on many vital issues, still registered some clear achievements. The most outstanding failure here was been the issue of Mexican trucking.

Much effort came to be directed at border issues and these efforts have increased dramatically following 9-11. Even before 9-11, however, border issues had increased in complexity, particularly on the US-Mexican border. As one author noted in 2000, “NAFTA set a timeline for the creation and implementation of transboundary standards and the incremental relaxation of restrictive regulations, but many provisions of this timeline remain unimplemented. The difficulties in negotiating transportation differences have fostered an atmosphere of mistrust between the U.S. and Mexico and have played a part in Mexico’s reluctance to participate fully in transcontinental transportation corridor planning.”

Finally, little attention was focused on larger issues of North American transportation infrastructure - other than border infrastructure. Early post-NAFTA thinking about the creation of NAFTA Super Highways and the application of high-tech systems to these new roads all seem to have faded away. Perhaps the most important issue was Washington's benign support of mergers in the railway industry - and then its change of direction with CN's effort to acquire Burlington Northern Santa Fe.

NORTH-SOUTH CORRIDORS

If we look back to the business community, much is going on at this time. The dramatic increase in volume of goods moving north and south in North America prompted business and communities to look for ways to attract more of this action. This suggests, of course, that in the absence of any vision of a North American transportation infrastructure, local interests and private companies would take major roles in shaping policy outcomes and that this would produce fragmented, localistic results.

For dozens of cities and municipalities and firms, the changing direction of the movement of goods provided opportunities for new business. Being on the north-south channel means not only the opportunity to create new businesses that facilitate the flow, but also access to a whole new realm of opportunities for services, for cooperative ventures, and for trade expansion. On the assumption, not unreasonable, that intra-North American trade would continue to grow, many towns and communities asked if they could offer alternative routes less heavily traveled, more direct, and newer. Is it possible to package intermodal alternatives -
combining road and rail? Local leaders sought ways to link up with businesses in other cities and towns from heartland to heartland to build a new channel that will capture some of this vast flow of goods. This entrepreneurial enthusiasm encouraged the formation of a garden full of “trade corridor” organizations - typically groups of businesses and metropolitan and often state government agencies - that would create an organization to capture some part of the new North-South flow.

Some of these organizations tried to build new transportation systems that would link urban regions and “clusters” in the US, Mexico and Canada. Some were more focused on building trade corridors to spur regional development or to create cross border “natural economic regions.” The most important differentiating factor between these groups is emphasis. For corridor organizations, a linear corridor serves as the primary driver of development in clusters along its length. Regional development organizations seek to spur development within a specific contiguous area, and to improve transportation systems that link elements of clusters within that area and provide the clusters with access to outside markets.

The key players in the trade corridors are entrepreneurs - often from smaller and medium sized firms - and officials from municipal governments. They build partnerships to support new business and political alliances to attract funds from local and state governments and even from federal agencies. People join these alliances because they believe this is where the new business is - or can be.

In every case, the motive remains the same, however - to make connections that business will see as an efficient vehicle for trade (and for the efficient functioning of supply chains) and transportation. Those who connect production and distribution centers most compellingly expect to reap a rich harvest of market growth.

US HIGHWAY LEGISLATION IN THE 1990S

In the early 1990s, Washington jumped into the transportation infrastructure issue big time with the first of a series of highway bills. There had been talk about “NAFTA Superhighways” for a decade. It had been clear since the mid-1980s that increased volumes of goods flowing north and south demand new approaches to transportation infrastructure. Some of this was echoed, we have noted above, in the discussions of several NAFTA Working Groups.

The US Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 was aimed at alleviating bottlenecks along highways and at border crossings. The Act identified 21 “high priority corridors”, and included funding for studies of border congestion as well as highway feasibility studies. It focused heavily on creating new north-south corridors.

The National Highway System Designation Act of 1995 (NHS) added 8 more high priority corridors. ISTEA evolved into the Transportation Equity Act for the 21st Century (TEA-21), passed on June 9, 1998. TEA-21 put forth an additional 14 high priority corridors. This act contained specific directives on trade corridor planning and border facility improvements (known collectively as the CORBOR programs). The National Corridor Planning and Development Program (NCPD) provided funding to States or Metropolitan Planning Organizations (MPOs) for
“coordinated planning, design, and construction of corridors of national significance, economic growth, and international or interregional trade.”

Under the NCBD program, grants are available for: “corridor feasibility, corridor planning, multistate coordination, environmental review, and construction.” The Coordinated Border Infrastructure Program (CBI) was designed to “improve the safe movement of people and goods at or across the border between the U.S. and Canada or the border between the U.S. and Mexico.”


What has come about is not at all clear. There were more proposed corridors, more money for individual projects, but nothing like a coherent, rational North American highway system has emerged from all of this. The vision of a system of North American Superhighways embodied in the ISTEA has not been realized.

Congress rapidly increased the number of designated high priority corridors in subsequent legislation, and everyone joined in to earmark funds for his own corridors. The first 23 corridors were designated by ISTEA, the next 12 by NHS, 18 by TEA-21, one by the Fiscal Year 2002 Transportation Appropriations Bill, and the remainder (36) by SAFETEA-LU.

There is more of a story here to be told about the growing impact of earmarks. The bottom line is that more and more of the control of the authorization of funds moved from the DoT to Congress, The highway funds became a pot into which Congressional etiquette encouraged everyone to dip his fingers. The number of designated high priority corridors increased quickly, and everyone sought to earmark funds for his own corridors. Any sense of a coherent continental – or even national – plan evaporated in rush of demands by states, local communities and business associations for funds to build a Wal-Mart mega-store of individual projects.

The result is that the latest map of high priority corridors looks like a plate of spaghetti. To be sure, there has been significant improvement in pieces of highways, at some border crossings and in other related areas. But cooperation in resolving transportation issues has been slow, and no movement is visible toward developing a true North American highway system. Certainly nothing like the bruited about plans for super multimodal corridors, wired with fiber optics and the latest digital frills, has come about. If anything, the general state of major highways in the US has declined over the past decade.

What this reveals, no surprise, is how difficult it is to build a continental highway system from the bottom up. Organizing this process as a competition among Congressional districts for highway funds is not going to produce any kind of rational blueprint for a continental system.

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13 Sec 1118 (a) TEA-21
14 Sec 1119 (a) TEA-21
15 www.fhwa.dot.gov/hep10/nhs/hipricorridors
16 It is interesting – and revealing of Congressional clout – how much of this money went to non-border states, in particular Kentucky and West Virginia and that not one high priority corridor was designated east of the Hudson River.
There is no evidence that any of this was developed in concert with the NAFTA partners. The highway legislation tied in, of course, to existing border projects and in individual cases and regions, much was accomplished (particularly, I think, the Pacific Northwest – PNWER territory). But there seems never to have been any sense of a continental system as a baseline for assessing individual projects.

The fact is, as Susan Bradbury observed in 2002, “Although the individual national [highway] transportation systems of the three countries are linked together, they are not truly integrated with each other.”

For example, the Pacific Highway crossing at Blaine, WA/Douglas, BC, which links Vancouver and the lower mainland of British Columbia with the Interstate 5 corridor to Oregon, California, and Mexico, is the fifth busiest port on the northern border and handles the highest truck volume in the western borderland region.

However, this crossing has no connection to the Canadian national highway system except by local access roads. In fact, there is no direct connection for trucks between the national highway system and any U.S./Canada border crossing in all of British Columbia except for local access roads (Transport Canada, 1996). A similar situation exists along the southern border. The Otay Mesa port of entry is connected to California's highway system by a four-lane city street that is currently operating at three times its designated capacity (Barton-Aschman & La Empresa, 1998; California Trade and Commerce Agency, N.D.).

It is not clear how much has changed since then. It would be interesting indeed to know more about where the push for the highway legislation came from. One would bet that the drivers were localities and states – and that there was little strategic thinking involved, particularly on a continental basis.

Another element of the whole story, of course, has to do with rail developments – the widespread merger movement that did substantially heighten railway efficiency and, too, the Open Skies agreement that did affect air travel. (But issues of cabotage were not resolved, nor were crew change issues on railroads and other key regulatory inhibitions.)

**BY 2006: BORDERS, ASIAN TRADE AND THE SECURITY AND PROSPERITY PARTNERSHIP OF NORTH AMERICA**

In the early 2000’s – after 9-11 and, also, with rising concern in the US on illegal immigration from Mexico – the focus on borders increased dramatically. At the same time, flows of goods across the borders also continued to increase and the fearful rise of China as an economic superpower drilled attention once more on North American competitiveness.

Substantial efforts have been made to improve the physical infrastructure at border crossings, particularly since 9/11. The US-Canada “Smart Border” agreement and the parallel agreement with Mexico represent significant commitments to improve border management. Organizations such as the Border Trade Alliance and the Can-Am Border Trade Alliance and various border communities have initiated dialogues with government agencies that have achieved significant incremental improvement in processes at the borders. Many

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who work in these agencies understand the problems of complexity and delay and seek better answers.

But the pyramiding of requirements and programs each of which can significantly inhibit quick border processing and all of which together require high degrees of inter-agency coordination (and typically involve federal, state and even local governments) as well as new levels of cooperation with business and border communities has created tumult in some instances and threatens what Stephen Flynn calls “a potential train wreck.” The key problem is the tendency, understandable but increasingly self-defeating, to follow traditional border management practices and concentrate all of these activities – achieving the highest possible levels of security, controlling immigration, and enforcing a widening array of licensing, health and safety standards, all carried out by different agencies with different rules and work practices – at the border itself.

Asian trade has had a critical impact both in terms of increased pressure on transportation assets and also as a symbol of eroding competitiveness. If we saw a reorientation of trade flows in North America from east-west to north-south beginning in the 1980s, a new balance seems emerging today: that between the land-based, North-South NAFTA trade flows and the newer shipping-based East-West flows of the new, inter-regional face of globalization – the boom of trade with Asia. This new balance between NAFTA trade and global markets is concentrated along the US borders and coastal regions plus some large cities. The challenge to North America’s competitive advantage as a region is not necessarily whether we can outproduce and outsell China or Asia per se, but whether we can adapt effectively to the new global environment, which would ideally mean the inclusion of North America into rapidly expanding and dynamic globalized production networks that encompass our own businesses and those of Asia.

The SPP – the Security and Prosperity Partnership of North America – revealed a wide array of on-going initiatives to harmonize regulations being carried out by executive agencies in the three national governments. The SPP went almost entirely unnoticed when it was announced by the three NAFTA leaders at their summit meeting in Waco Texas in March 2005. In nearly two years of operation, the SPP remains largely invisible, even as upwards of twenty working groups across broadly defined Security and Prosperity agendas have engaged multiple executive agencies and offices in the three national governments to study and propose revisions of hundreds of regulations. The SPP has become, however, the current focus of fears that American sovereignty will be surrendered to a North American Union.

A brief introduction to the SPP would suggest that:

- It rests on the existing structure of inter-agency contacts and NAFTA Working Groups and Committees
- It focuses on regulations that can be revised without Congressional approval, for the most part, driven by specialized officials with narrow bureaucratic purview, with the possibility of input from ‘stakeholders’ with (it is assumed) focused economic interests.

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19 The next paragraphs are drawn from Professor Golob’s unpublished but forthcoming work on the SPP.
• There is a purposeful lack of Big Picture framing of these regulatory changes – buried inside Commerce and other agencies, and designed to tweak the inefficiencies without attracting political and media attention.

• Double bilateralism reinforced. The SPP provides flexibility for multi-speed cooperation, but also exacerbates the hub and spoke nature of North American governance in general. This produces two key implications: first, that US security trumps everything; and, second, that Canada and the US can move ahead leaving Mexico behind.

The SPP focus on transportation was modest. It called for efforts to improve the safety and efficiency of North America’s transportation system by expanding market access, facilitating multimodal corridors, reducing congestion, and alleviating bottlenecks at the border that inhibit growth and threaten our quality of life. But it made few concrete recommendations – these included expand air services agreements, increase airspace capacity, initiate an Aviation Safety Agreement process, pursue smart border information technology initiatives, ensure compatibility of regulations and standards in areas such as statistics, motor carrier and rail safety, and working with responsible jurisdictions, develop mechanisms for enhanced road infrastructure planning, including an inventory of border transportation infrastructure in major corridors and public-private financing instruments for border projects).

It is not clear if the SPP really represents an advance in the process of creating a more efficient and secure North American system. It may well prove to be no more than the continuation of outdated patterns of intergovernmental interaction and bureaucratic insularity that are more reminiscent of the pre-NAFTA relations between the three member countries. The SPP misses out on two key elements of Europe’s success: the integration of poorer states as equal members, and the public communication of why “regional integration” should matter to citizens, not just corporations or government officials. The failure to build these two types of constituencies – national and subnational – helps explain the short-circuiting of the “spill over” cycle and why SPP’s contribution to the future of North American integration may be less than meets the eye.

A “PERFECT STORM”?

Many transportation specialists in industry and in the research community believe that a "perfect storm" is beginning to build that puts our freight transportation system at serious risk and endangers North America's competitiveness. The transportation infrastructure upon which all of this depends is becoming growth limiting.

By the early 2000s, it was becoming clear that the increase in volumes of goods flowing across North America’s internal borders was outrunning the capacity of our highways, bridges, railroads, marine and air transport infrastructure and border crossings. Today, North America’s transportation and border infrastructure provides little margin for future expansion. UPS CEO Mike Eskew states, “What’s shocking, quite frankly, is the inability of our transportation infrastructure to keep up with the normal day-to-day stresses imposed upon it...
Our highways, waterways, railroads and aviation network are simply not keeping up with ordinary demands.”

A report from the Brookings Institute earlier this year sums up the situation: “Because the ability to compete and thrive in the emerging global economy now depends on the strengths of a nation’s freight system, this dynamic situation generates one crucial question: Can U.S. infrastructure handle the volumes and adequately extract economic value from goods movement? ... The congestion and delays in the U.S. freight system in 2004 would indicate that U.S. freight infrastructure is in crisis despite massive investment in certain elements”

Observers point to three forces that are working together to erode the quality of the system and with it the competitive advantage the transportation system provides.

1. Over-reliance on Aging Infrastructures and Traffic Management Systems in All Modes

The three NAFTA nations have all failed to maintain existing transportation infrastructure. A 2004 report from The University of Denver’s Intermodal Transportation Institute finds “America’s long and successful ride to prosperity is threatened by a transportation infrastructure incapable of meeting future requirements. The interdependent network of roads, bridges, and terminals is growing increasingly antiquated, congested and disconnected, and, therefore, incapable of providing the productivity and prosperity support upon which the nation has depended for the last century and a half.”

In its latest “report card” on transportation infrastructure, the American Society of Civil Engineers awarded our roads a “D” (and our aviation system a D+; navigable waterways a D-; and rails a C-). A paper issued by the National Chamber Foundation of the U.S. Chamber of Commerce estimated that by 2015, it would cost $295 billion to “maintain” our “pavements, bridges, and transit infrastructure” and $356 billion to “improve” these systems. The report concludes that total cost to improve the system for the period from 2005 to 2015 will be $3.4 trillion but that total revenue will be only $2.4 trillion, leaving a cumulative gap of approximately $1.0 trillion. Canada and Mexico have done no better.

Even before 9/11, border infrastructure had fallen behind the rapid increase in volume of goods that move among the NAFTA nations. The Task Force Report on “Building a North American Community” sponsored by leading business organizations in the three nations stated: “While trade has nearly tripled across both borders since the Canadian-U.S. Free Trade Agreement (FTA) and NAFTA were implemented, border customs facilities and crossing infrastructure have not kept pace with this increased demand. Even if 9/11 had not occurred, trade would

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20 UPS Pressroom: Current Press Releases, “Transportation Infrastructure Failing the Nation, Says UPS CEO” (March 30, 2006)
22 “Investing in America’s Future; The Need for an Enlightened Transportation Policy,” Intermodal Transportation Institute, University of Denver (September 2004)
23 American Society of Civil Engineers (www.asce.org/reportcard/index.cfm?reaction=full&page=6#roads)
24 Future Highway and Public Transportation Finance Phase I: Current Outlook and Short-Term Solutions prepared by Cambridge Systematics, Inc. under contract to the National Chamber Foundation® of the U.S. Chamber of Commerce (2005)
be choked at the border. There have been significant new investments to speed processing along both the Canadian-U.S. and Mexican-U.S. borders, but not enough to keep up with burgeoning demand and additional security requirements.\textsuperscript{25}

2. The Weakness of Local, National and North American Governance Processes for Investment in Transportation System Upgrades

There is no process in place capable of managing the rapid adaptation of the North American transportation system. No agency or institution is charged with responsibility for reviewing North America’s transportation infrastructure or for estimating what transportation infrastructure requirements might be under different economic growth scenarios. Even within the three countries, transportation infrastructure is almost always viewed in single mode silos. The challenge: to generate improvements, which add economic value. Yet large increases in public spending, especially in a climate of rising interest rates, global financial imbalances and high national debt, must be evaluated with the utmost care and attention to economic benefits.

The record so far is not promising. As noted above, Washington budgeted vast sums in a series of highway funding bills in the 1990s to identify and improve “high priority corridors” that would facilitate north-south trade. In fact, most of the money was spent on thousands of local projects. While many of these projects were undoubtedly useful, they do not add up to anything like a true North American highway system. Nothing like the super multimodal corridors wired with fiber-optics and the latest digital enablers – all of which were discussed in the early highway legislation – has appeared or is even planned.

The rail situation is no better. While trucks carry some three-quarters of North America’s freight traffic, the volume carried by rail has grown greatly. Mergers and alliances in the railroad industry in the mid-1990s seemed to be building networks that would provide seamless rail service from Canada to Mexico. But no discussion has taken place on expanding the North American rail system, nor is there any sense of where, how or with whom such discussions might begin. Former CP President and CEO Rob Ritchie observed, “Our railroads are struggling to keep pace with current demand. Shippers want to move more product in many important corridors in North America than infrastructure capacity can handle – an issue the rail industry has not faced for decades.” He stated, “The North American economy can no longer afford to have its rail network improve only incrementally. Railroads will become a constraint on economic growth unless we can increase capacity faster.”\textsuperscript{26}

3. Public policy and regulatory barriers to effective adaptation of the transportation system

As the scale of integration increased and as easier gains from bottom up integration ran their course, the impact of dysfunctional regulations - of the

\textsuperscript{25} Report of an Independent Task Force (May 2005) \textit{Building a North American Community}, supported by the Council on Foreign Relations with the Canadian Council of Chief Executives and the Consejo Mexicano de Asuntos Internacionales, p 9

\textsuperscript{26} Remarks by Rob Ritchie, President and Chief Executive Officer, Canadian Pacific Railway at the Conference on Railroad Industry Structure, Competition and Investment at Northwestern University, Evanston, Illinois
“tyranny of small differences” – have become more important. National regulatory systems affecting transportation systems often work at cross purposes, says automotive specialist Isabel Studer: “The auto industry is widely seen as one of the most integrated North American industries. But the protectionist environment in the United States, the continued existence of costly rules of origin, expensive regulations and different standards – particularly between Mexico and its two North American partners – are undermining the competitive potential derived from achieving further integration in the North American auto industry.”

The Security and Prosperity Partnership for North America focuses on regulatory cooperation. But it is not clear how this process will proceed or its priority in the three national capitals.

The ability of North American firms to build complex, cross-border supply chains may be at risk Professor Mary Brooks, a transportation specialist at Dalhousie University, warns of danger that the deepening integration of the North American manufacturing sector will stall. Rising security concerns, increased border delay and a wide array of infrastructure problems have “damaged the credibility of the just-in-time system. The result has been to boost buffer stocks, and force just-in-time supply chain managers to re-examine their sourcing options…”

Inadequate transportation infrastructure also limits development in poorer North American regions and intensifies regional differences in standards of living. The problems of Mexico’s physical infrastructure, particularly in the south, and how this hinders economic progress are well known. A recent report issued by the American Chamber Mexico’s International Trade Committee notes that “Mexico stands at a crossroads. It can either take full advantage of its strategic geographic location to become an advanced manufacturing platform or it can continue down the road of a low wage, low value added assembly economy. An efficient and secure transportation system will act as a catalyst to help Mexico shift towards an advanced manufacturing platform. The result will be greater prosperity for Mexican citizens and an increased competitiveness for the entire NAFTA region.”

Similar problems affect Canadian and US regions as well – in particular, Canada’s Atlantic Provinces which along with northern New England are in danger of being left as a “geographic backwater” in the new North American economic system.

There is still time to head off this storm. There are some encouraging signs that governments are listening. In the past year, the leaders of the three NAFTA nations created significant new programs to enhance North American productivity and competitiveness – the Security and Prosperity Partnership of North America and the North American Competitiveness Council – that underline the need to improve transportation efficiency.

Yet few concrete steps have been taken to meet this goal. No vehicle exists to support an on-going dialogue with transportation stakeholders. There is no suggestion of the need to create an integrated and coherent North American

29 American Chamber Mexico (Monterrey Division), “Trade and Logistics in Mexico: issues and recommendations for a more competitive transportation sector” (January 2004)
30 See the various materials prepared by the Atlantic Institute for Market Studies.
transportation strategy or of how the intellectual resources found in transportation institutes, university transportation/supply chain management/logistics departments, and other think tanks might be mobilized to participate in this process. Uncoordinated or stand-alone initiatives pursued by individual stakeholders can have limited effectiveness at best in this environment. We need to think now about a transportation strategy for North America.

ELEMENTS OF A NORTH AMERICAN TRANSPORTATION STRATEGY

Many transportation leaders and researchers agree on the need to create an integrated and coherent North American transportation strategy that contains these key elements:

- A transportation strategy must rest on a clear vision of a continental, multi-modal transportation system that will meet North America’s transportation, logistics and supply chain requirements over the next decades. It will result from a dialogue between a transportation-supply chain stakeholders group composed of high-level representatives drawn from transportation service providers, shippers, key transportation service enablers and academic/research institutions and government agencies in the three NAFTA nations.

- Transportation systems can no longer be thought of primarily in national terms. East-west transportation structures have shifted in the past two decades to meet the demands of an increasingly north-south continental economy. A North American transportation strategy must build on this reality. The dramatic increase in trade with Asia illustrates this need to think in continental terms. Vancouver, Montreal and Halifax or Mexico’s deep-water ports on the Pacific must be viewed, for example, as North American ports. The reason for expanding capacity (or for developing new facilities like those under construction in Prince Rupert) is to expedite larger flows of North American goods. Port development must be seen in context of continental trade flows with Asia and in context of a continental transport system.

- Transportation systems cannot be viewed as separate silos - rail, road, water and air. Instead, a transportation strategy must be conceptualized in terms of trade-offs in multi-modal terms - at, for example, the balance between improved rail or improved road service, at the impact of enhanced short sea shipping on road and rail traffic and at how to increase and better coordinate more air cargo as a critical element of a North American transportation system.

- Implementation is a critical element of a transportation strategy. A North American superhighway system cannot be constructed from the bottom up, locality-by-locality. The Security and Prosperity Partnership of North America has underlined the need for regulatory cooperation. A North American transportation strategy must focus as well of creating arrangements for collaboration on planning, constructing and maintaining physical infrastructure.