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## HIGHLIGHTS

- Despite the brakes applied by high gasoline prices and this year's Japanese earthquake, continent-wide sales and production remain on track to register a second consecutive double-digit gain in 2011. And while rates of expansion can naturally be expected to taper off as a recovery becomes more firmly entrenched, the positive momentum behind sales and production is likely to carry over into 2012.
- The brightening picture reflects the improving U.S. sales environment, where a combination of thawing credit conditions and a pickup in job markets is expected to unleash a fair amount of pent-up demand. In Mexico, sales prospects are also bright over the next few years. Less upside is predicted for Canadian light vehicle sales, since demand remained resilient on this side of the border during the recent global recession.
- This year, underlying production trends are being distorted by the fallout of the Japanese earthquake. Although production is likely to ramp up again by the autumn of 2011, losses are unlikely to be fully recouped until 2012.

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## THE NORTH AMERICAN AUTO OUTLOOK

*Despite the earthquake and high gas prices, sector's recovery remains intact*

As the economic recovery enters its third year, a particularly good news story has been the recent revival of the North American auto sector. Despite the brakes applied by high gasoline prices and this year's Japanese earthquake, continent-wide sales and production remain on track to register a second consecutive double-digit gain in 2011. And while rates of expansion can naturally be expected to taper off as a recovery becomes more firmly entrenched, the positive momentum behind sales and production is likely to carry over into 2012.

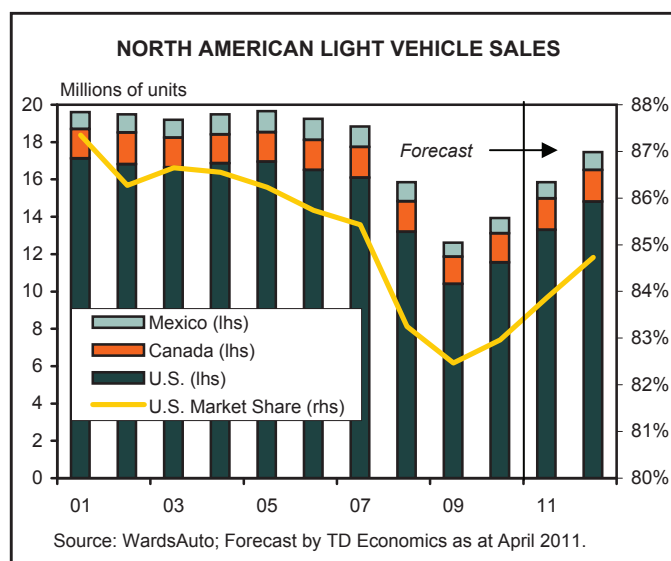
The brightening picture reflects the improving U.S. sales environment, where a combination of thawing credit conditions and a pickup in job markets is expected to unleash a fair amount of pent-up demand. Although few analysts are expecting U.S. sales to retest their peak of 17-18 million units a decade ago, the ascent back to the 15 million level next year would be a feat given the plunge to about 10 million units during the throes of the recession. In Mexico, sales prospects are also bright over the next few years. Less upside is predicted for Canadian light vehicle sales, since demand remained resilient on this side of the border during the recent global recession.

Stemming in part from the recent resurgence of the Detroit 3 brands, there has been a significant reduction in the share of North American demand satisfied from overseas

sources over the past few years. We expect this trend to continue over the 2011-12 period, delivering an added boost to North America's economy. By our calculation, the direct and ancillary benefits of the growing auto sector is likely to raise U.S. and Canadian GDP by about 1 percentage this year and about half a percentage point next year. This economic injection should help to keep both economies on the recovery track.

### U.S. sales rebounding

The forecast upswing in U.S. sales comes on the heels of a decent rebound in 2010, when some 11.5 million units left dealer lots, representing an 11% rise over the prior year. And in the first quarter of this year, sales advanced by a healthy 13 million units at annual rates. A combination of pent-up demand for automobiles and an improving economic and job-market backdrop are the key engines driving

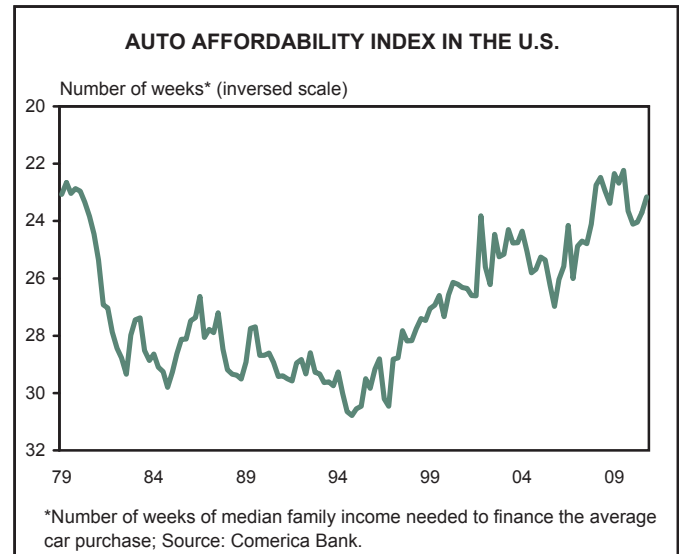


sales higher. Looking ahead, these tailwinds are expected to dominate some offsetting forces on the landscape, namely elevated pump prices and the impact of the Japanese earthquake on the availability of vehicles in U.S. showrooms.

In terms of pent-up demand, prior to the recent leg up, U.S. sales had been in a 4-year freefall between 2005 and 2009. This decline coincided with the unraveling of the U.S. housing market beginning in 2006 and the knock-on effects of weaker housing and credit activity on demand for big-ticket household goods. Thus, many Americans opted to hold on to vehicles longer than desired – as reflected in a steep drop in the aggregate replacement rate. Moreover, in spite of some 2 million individuals in the United States joining the driving-age ranks each year, “new” demand (or purchases that don’t serve the purpose of replacing or scrapping existing cars) has essentially dried up over the past 3-4 years. Accordingly, one necessary condition for auto sales to recover – a significant build up of appetite – appears to be in place.

Other ingredients are also likely to lend support to a continued rebound in U.S. sales over the forecast period:

- With recent signs that the private-sector job creation has begun to step up, TD Economics projects healthy net additions to payrolls of 225,000 per month in the second half of 2011 and in 2012. The jobless rate is expected to decline to 8.1% by the end of next year.
- Helped in large part by rising household income and favorable borrowing terms, affordability is projected to remain strong. According to one industry measure, the number of weeks of median family income needed to finance the average purchase has been following a declining path and remains close to its multi-year low



recorded attained in the third quarter of 2009.

- Contributing to an improving cost of credit is the thawing of credit conditions in recent quarters. Leasing activity, has been rebounding, most prominently among the Detroit 3 companies. In addition to a normalization in the functioning of the wholesale market for credit, leasing availability has been boosted by the expectation that residual values (i.e., values of vehicles at the termination of the lease) will remain strong for the next 3-5 years in light of the strengthening demand for used vehicles and the below historical levels of inflow of off-lease vehicles. Stronger residual values support leasing activity by lowering monthly payments on leased vehicles and by reducing the risk borne by the lender.

Although these factors will help to keep the sales uptrend intact, we’re not anticipating a return to the historic norm of

AUTOMOTIVE SALES AND PRODUCTION										
	Per cent Change					Number of Units (000's)				
	2008	2009	2010	2011F	2012F	2008	2009	2010	2011F	2012F
<b>SALES OF LIGHT VEHICLES</b>										
<b>NORTH AMERICA</b>	-15.6	-20.7	10.6	13.7	10.1	15,894	12,605	13,946	15,858	17,467
<b>Canada</b>	1.2	-11.3	6.5	5.8	1.9	1,674	1,485	1,581	1,673	1,704
<b>United States</b>	-18.0	-21.4	11.3	15.2	8.4	13,195	10,370	11,545	13,300	14,800
<b>Mexico</b>	-6.2	-26.9	9.3	8.0	8.7	1,026	750	820	886	963
<b>PRODUCTION OF LIGHT VEHICLES</b>										
<b>NORTH AMERICA</b>	-16.1	-32.6	40.2	11.4	9.3	12,607	8,492	11,910	13,270	14,546
<b>Canada</b>	-19.6	-27.9	40.1	5.0	11.4	2,043	1,472	2,063	2,166	2,413
<b>United States</b>	-19.3	-34.4	36.9	12.1	8.1	8,456	5,549	7,596	8,515	9,205
<b>Mexico</b>	5.1	-30.2	53.0	15.0	13.1	2,108	1,471	2,251	2,589	2,928

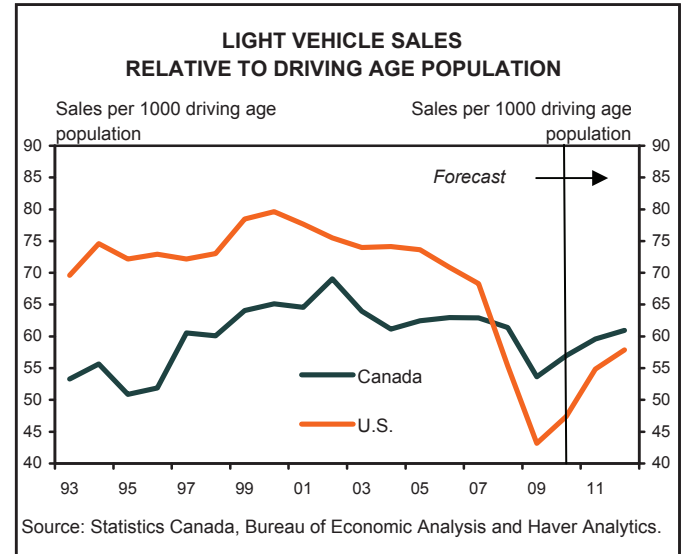
Forecast by TD Economics as at April 2011.

Source: DesRosiers Automotive Reports, WardsAuto, TD Economics.

17-18 million sales levels over the foreseeable future. For one, the slow process of healing wounds in the housing and labour markets opened up during the financial crisis points to some ongoing caution on the part of households and lenders over the next few years. This caution – combined with the trend improvement in the quality of vehicles – suggest that both vehicle ownership and replacement rates will not rebound to levels recorded in past decades.

What’s more, the likelihood that gasoline prices will remain lofty – in the US\$3.50-4.00 per gallon range – over the next few years are also likely to put a lid on the sales recovery. That said, high pump prices tend to have less of an impact on the overall sales performance than they do on the types of cars demanded. For instance, there was a significant shift to smaller, more efficient vehicles in 2008 as a result of the spike in gasoline prices to US\$3.70 per gallon. At the time, the ratio of car to light truck sales rose to a record 57:43 in May 2008. Since then, the ratio has tilted back to about 52:48. Given that some adjustments in fuel efficiency and behaviour have already been made to elevated energy prices over the past five years, the tipping point required to generate substantial impacts akin to 2008 has probably increased to around US\$4.00-\$4.50 per gallon.

The effects of this year’s tragic Japanese earthquake on U.S. and North American sales are even more difficult to pin down, as details are still emerging. As we discuss in the text box, the consensus is that sales volumes will be negatively impacted over the next few months due to reduced availability of various models – primarily Japanese brands – and a scaling back in sales incentives as a result of the supply disruptions. In some cases, buyers will move to alternatives or delay their purchase until supply chains



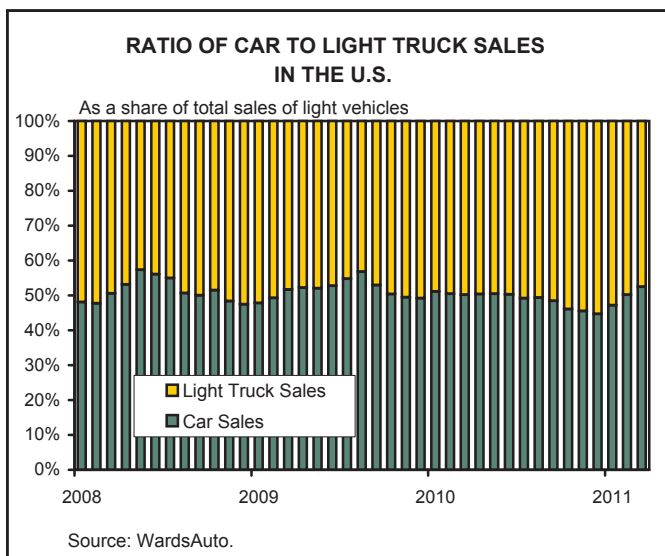
resume, likely by the latter part of this year. As we argue in the box, the implications for production are likely to be somewhat larger than sales, leading to unplanned near-term reductions in inventories.

Adding it up, we expect sales to climb steadily to 13.3 million in 2011 and to 14.8 million in 2012. Of those totals, approximately 11-12 million will represent replacement demand, while the remainder (2-3 million) will owe to a cyclical rebound in new demand. A discussion of this composition of the drivers of auto sales can be found in the box on page 4.

**Not much pent-up demand left in Canada**

Supported by a strong banking system, sales volumes in Canada did not plummet to the same depths as they did in the U.S. during this past recession. As can be seen, the ratio of light vehicle sales per thousand of driving age individuals contracted from 61.4 to 53.6 during the 2008-09 period – representing a drop of 7.7. The comparable drop in the United States was a much heftier 12.2. So, it shouldn’t be surprising that growth in sales so far during the recovery has been lagging behind that of the United States. Year-to-date Canadian sales are up a relatively moderate 1.9%, to 1.33 million units at annual rates. Looking forward, Canadian light vehicle sales are projected to advance modestly – to 1.67 million units – in 2011 as a whole and to remain close to that level in 2012.

Although we don’t see much pent-up demand, there still appears to be some further scope for a cyclical bounce-back in both replacement demand and incremental sales over the next few years. Canadian light vehicle purchases should be supported by steadily growing household income, a



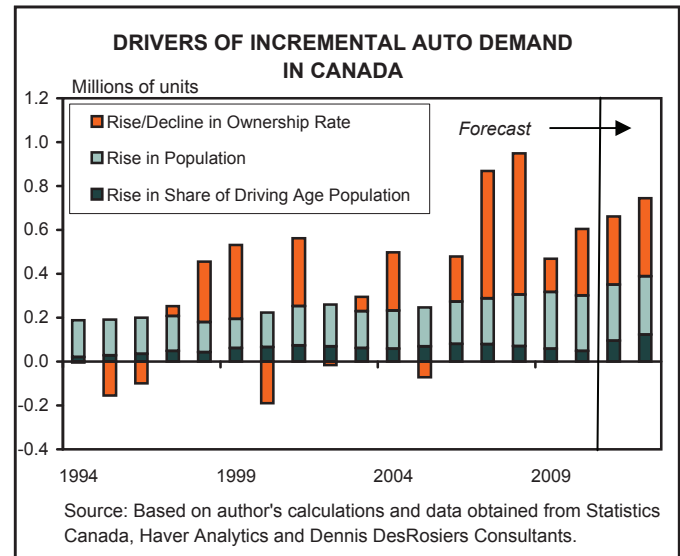
gradually dropping unemployment rate and still-favorable affordability. Although elevated gasoline prices will influence purchasing behavior, the overall hit on sales and the extent of the transition to smaller vehicles is likely to be more modest than Stateside. This reflects the fact that the Canadian market currently has about twice the penetration rate of small entry vehicles relative to the U.S. market.

One factor that is likely to limit sales prospects over the medium term is the high indebtedness of Canadian households. Unlike their American counterparts, Canadians have been adding significantly to their debt-loads in recent years to purchase housing and, to a lesser extent, to finance consumption. TD Economics' base case projection assumes that Canadian households gradually lift their foot off the throttle over the next few years, as interest rates head higher. Nonetheless, any unanticipated spike in interest rates or weakness in job markets has the potential to lead to a significant medium-term correction in Canadian auto sales.

On a regional basis, the Prairies and in Newfoundland & Labrador appear set to enjoy above-average sales performances, while other parts of Canada trail behind. This gap is consistent with the overall direction of the economic momentum, notably from the manufacturing-heavy provinces to those driven by commodity prices. Nonetheless, no region is expected to be a standout, as some of the headwinds on sales, such as gasoline prices, will be felt universally.

**Strong gain in Mexican sales**

Much like the U.S., Mexico has a long road ahead to recover the lost vehicle sales during the downturn. Going forward, we expect sales to be supported by decent income and employment growth, a greater availability to credit as

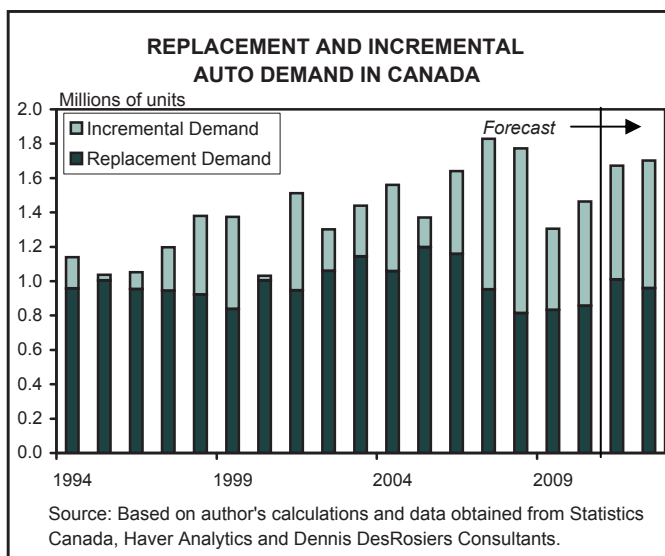


well as favorable demographics which will allow roughly one million individuals to enter the labour force market per year. The Mexican government is actively involved in initiating policies to strengthen domestic vehicle sales. In addition to forcing banks to lend to vehicle buyers, it is removing the more than 40-year old tax on new vehicle purchases (i.e., the "tenancia"). As such, we expect sales

**What drives auto sales?**

The demand for vehicles may be decomposed into a number of drivers, thereby allowing one to evaluate the extent of the contribution of each component towards total vehicle demand. The overall demand for auto can be broken down into what is commonly referred to as replacement demand and incremental demand. The former component is defined by the portion of current vehicles in operation that is destroyed and subsequently replaced by a new fleet of vehicles. The rate of scrappage has consistently declined in recent years in light of improvements in the age structure, the state of maintenance and the expected useful life of vehicles in operation as well as a reduction in vehicle usage.

Meanwhile, incremental demand is driven by the rise in the share of the driving age population, the rise in population and the rise in vehicle ownership rate. The former two drivers are solely dependent upon the demographical composition of a country, which are determined by birth rates and immigration policies. The rise in vehicle ownership rate is dependent upon factors such as the economic affluence of individuals, the cost of ownership, the attitude towards vehicles, the rate of household formation and the state of the public transportation and infrastructure systems.



to rise by about 8% this year – to 890,000 units. Next year, a further 9% increase is anticipated.

### North American production to follow suit

Riding on the coat-tails of expanding sales activity, North American production has sprung back strongly so far during the recovery. Indeed, last year's 40% rebound in overall output of light vehicles fully offset the reductions recorded in 2008 and 2009. What's more, 2010 represented the first year in about a decade that continent-wide production outperformed sales. But while the break in this trend was partly tied to the desire of producers to rebuild inventories, it also reflected the strength of Ford and the revival of both General Motors and Chrysler in the aftermath of the financial crisis. The combined North American production share of these three companies – which had declined from 57.1% in 2008 to 52.4% in 2009 – has since bounced

back to about 56.0% in 2010. We expect this recent shift to have some staying power. Since these companies supply North American demand exclusively through domestic supply – whereas Japanese and European automakers source about one third through overseas output – North American production benefits.

This year, underlying production trends are being distorted by the fallout of the Japanese earthquake. As we discuss in the box, the brunt of the impacts are likely to fall on Japan-based car manufacturers. Although production is likely to ramp up again by the autumn of 2011, losses are unlikely to be recouped until 2012. In the meantime, North American inventory levels will likely head even lower due to the supply-disruptions. As at the end of March, U.S. inventories were at 54 days – a record low and down from 60 days at the end of February. These low stockpiles should translate into a solid medium-term output performance.

### Impact of the Japanese Crisis

The fallout of the Japanese earthquake and tsunami which erupted in Japan in March has noticeably affected the country's lean and globally integrated auto industry in assembly plants far beyond its borders. This has impacted the North American market in two ways. First, the direct impact on production in Japan has reduced the availability of certain brands, most notably, Honda, Toyota, Nissan, Audi and BMW. Second, and more importantly, the adverse effect on supply chains through lower parts output has weakened near term production prospects within North America. Japan's automakers have been hardest hit, as roughly 30% of sales in North America originate from its facilities in Japan. Moreover, while the North American assembly operations of the Japanese-based producers source most of their parts from local producers, a larger share are still derived from Japan compared to other manufacturers.

April's release of the Japanese auto makers' production schedules in North America indicated a production decline of at least 256,200 vehicles (representing about a 2% share of North American production) in the second quarter relative to March's release of the production schedules. The most noticeable pullback in production in the second quarter relative to the first quarter is consequently expected to be experienced by Honda (decline of 82,300 units) followed by Toyota (decline of 61,500 units) and Nissan (decline of 61,200 units).

Honda is expected to continue to experience half-time

production schedules in a number of its North American plants. According to the executive vice-president at American Honda Motor Co., John Mendel, the duration of the production disruptions may last for a period of up to 90 days. If such an expectation is realized, production by Honda will return to normal levels by the autumn. Toyota's manufacturing plants in North America, which are currently operating at 30% of capacity in light of the shortage of parts being supplied from Japan, are expected to resume their operations in August.

The drawdown of the Japanese auto makers' inventories, in addition to seasonal factors, has caused Nissan and Toyota to eliminate April's purchase incentives. Honda has maintained its 0 per cent financing intact however. The crisis created by the shortage of auto parts seems to have had a less pronounced impact on Ford, GM and Chrysler as these companies have largely carried forward or increased their expenditures in March. Moreover, their production schedules have generally remained unchanged between the March and the April releases.

The impact of the Japanese crisis on North American auto sales and production is poised to be temporary. For the most part, it will result in sales and production being delayed until later this year and in 2012. In the meantime, North American based producers could benefit from reduced availability of Japanese models, mitigating some of the effects of the earthquake on the 2011 auto sales and production performances.

### U.S. output to lead the way

Within North America, the prospects for vehicle production in the U.S. are particularly strong, as evidenced by the momentum recorded so far this year. In particular, the release of production schedules for the second quarter point to a robust rise of 10.6% on a year-over-year basis. Supported in part by an improving competitive landscape on the heels of the most recent Detroit 3-UAW agreements, production in the United States will benefit from the start-up or expansions of a number of operations over the next few years, including General Motors' new plant Orion, Michigan, in July 2011 and Volkswagen's new Chattanooga, Tennessee operation in April 2011. Toyota's new assembly plant in Blue Springs, Mississippi, is expected to resume production in October 2011. Overall, we expect vehicle production in the U.S. to rise by 12% in 2011 and 8% in 2012.

### Canada 2011 output gains to be limited by earthquake

While Canadian production entered this year on a strong note, rising by about 13% (Y/Y), the near-term fortunes have been scaled back since the Japanese earthquake. Japanese-based companies, which have been harder hit by the production disruptions, account for a larger share of Canadian production (9.1%) compared to the North American average (7.4%). As such, downgrades to second quarter production schedules were particularly significant, with growth for the April-June period expected to be down about 5% from a year earlier. Still, with production growth expected to regain momentum by the latter part of this year, the prospects for 2012 look favourable.

Supporting Canadian production in the months ahead will be the addition of a second line at the Oshawa assembly plant, which is anticipated to boost output by some 150,000 units both this year and next. Noteworthy, Chrysler is expected to surpass Toyota as the second largest assembly operation in Canada (after General Motors) on the back of output expansions at its Brampton and Windsor operations this year. Still, Toyota could reinstate its second place position next year as production snaps back from this year's setback. On the flip side, the closure of the St. Thomas facility later this year is expected to result in lower production at Ford's Canadian operations in 2011 and in 2012. All

said, we forecast a rise in production of 6.0% in 2011 and 10.4% in 2012.

### Mexico's footprint to continue to grow larger

Mexico is expected to continue to see its North American production share over the next few years, helped by its competitive wage structure and proximity to large U.S. and emerging Latin American countries. Preliminary data for production and production schedules indicate that Mexico's vehicle production will rise by 21.3% in the first quarter and by 19.0% in the second quarter of 2011. New production will be generated by Toyota in 2012 from a new plant based in Aguascalientes which is expected to produce 175,000 units during the first year. Chrysler's plants based in Saltillo and Toluca are projected to expand by 115,000 units in 2011 relative to 2010 and remain relatively steady in 2012. Ford's Cuautitlan plant will likely add 75,000 units in 2011 and 40,000 units in 2012 on top of the 2011 level. As such, we expect Mexico's vehicle production to grow at a rate of 20.0% and 12.5% in 2011 and 2012, respectively.

### Sector to contribute significantly to economic growth

While there has been particular focus recently on the short-term disruptions resulting from the Japanese earthquake, the truth of the matter is that the reviving auto sector is still likely to deliver significant economic benefits this year and next. Since direct auto and parts output accounts for relatively small shares of GDP in Canada and the United States of less than 2%, it is the second round effects of sales and production activities that quickly accumulate as income is generated and spent. Based on our calculation, the contribution towards Canadian real GDP growth from TD Economics' forecast profile is 0.9 percentage points in 2011 and 0.6 percentage points in 2012. In the United States, comparable figures are 1 percentage point and 0.6 percentage points.

### Bottom Line

What a difference a few years can make. Despite running into some potholes – notably high gasoline prices and the Japanese earthquake – the North American auto sector is gaining strength and, in turn, will be a key contributor to the economic recovery underway.



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