North American Economic Cooperation: 
The Wartime Experience 
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Abstract. Current discussion of North American free trade, of free factor movements, and of resource sharing, has been largely silent about the extensive experience in economic cooperation between Washington, Ottawa, and Mexico City during World War II. That period, rather than illustrating that the Metropolis was otherwise occupied as André Gunder Frank has contended, shows the potential for common action by states when confronted by a common unifying cause or (threat).

This paper highlights the extent to which Canadian and Mexican dependence on the United States increased during the war and the extent to which economic activity in Canada and Mexico either paralleled that in the United States or was influenced by government decisions in Washington. Examples relating to foreign trade, import substituting industrialization, prices, and infrastructure development in Mexico and Canada are used to show Washington's expanded wartime role.
The relaxation, weakening or absence of ties between metropolis and satellite will lead to a turning in upon itself on the part of the satellite . . .

Examples of such active capitalist involution are the industrialization drives of Brazil, Mexico, Argentina, India and others during the Great Depression and the Second World War, while the metropolis was otherwise occupied.

--André Gunder Frank\(^1\)

Analysis of the economic experience of most nations during the Second World War is an area of relative neglect. General economic histories of countries have a tendency to simply leave a gap between 1939 and 1945, preferring not to take the trouble to comb through specialized studies and documentary evidence of what was a substantial departure from business as usual.\(^2\) The period tends to be glossed over with reference at best to stylized facts relating to general trends and major changes.

The observation by André Gunder Frank which appears above, while broadly correct, neglects significant details about the war-time experience. Another broadly correct statement about this period is one by Benjamin Higgins which refers to Australia, Canada, the United Kingdom, and the United States:

... the wartime problem in those countries, like the development problem, was essentially one of achieving rapid large-scale transformation of the economy, involving rapid and substantial reallocation of resources. Indeed, the reallocation of resources involved was much greater in the fighting of a major war than is required for economic development.\(^3\)

Implicit, whether intended or not, in both statements is an assumption that the economies spoken of were in no significant way
reliant on imported goods during the war years. While no one would deny the primordial importance of wartime imports to the United Kingdom, the role of imports in the cases of Canada, the United States and the Latin American countries is not as well known.

In addressing the major shift of resources during the war, which Higgins speaks of, one must make several important qualifications: the state played a critical role in that reallocation; prices were regulated by the state; and the reallocation was not merely national but at least hemispheric, if not actually global. It is this last point which I shall emphasize here. While the U.S. metropolis may have been, to an important extent, "otherwise occupied", most of the countries of the Western Hemisphere and particularly Canada and Mexico were never tied as closely to the U.S. economy as they were during World War II.

If Third World countries could count on the kind of cooperation from the industrialized countries that the former were called upon to provide during the Second World War, the development task would be eased immeasurably. Examination of the circumstances relating to hemispheric resource reallocation leads as well to a substantial qualification of Frank's hypothesis regarding "active capitalist involution" in Mexico.

While the United States had substantial disagreements with both Canada and Mexico during the 1930s--with Canada over tariff policy; with Mexico over the latter's expropriation of U.S. oil properties--all three declared War on the Axis forces (Canada in 1939 and 1941, the U.S. in 1941 and Mexico in 1942) and all cooperated, to an extent unequalled before or since, in meeting war-time objectives. Although Mexico exported one-third of its oil to Germany in the months following
the former's expropriation of U.S. and British oil interests in 1938, this was a short-lived phenomenon, as the sympathies of the Mexican President Lázaro Cárdenas and his successor, Manuel Avila Camacho, were firmly with the Allies.\textsuperscript{5} Avila Camacho, for example, cooperated in July 1941 with the U.S. request that Mexican firms doing business with the Fascist powers be blacklisted.\textsuperscript{6}

The war years were a period of extremely rapid growth for all three countries. Real gross national product increased at an average annual compound rate of 10.6 percent in the United States, 10.9 percent in Canada and 5.9 percent in Mexico between 1939 and 1944. Both the United States and Canada experienced declines in 1945, while Mexico's growth slowed to 2.7 percent. In all three countries manufacturing was a leading sector: manufacturing production grew by 131 percent in the U.S., 118 percent in Canada and 57 percent in Mexico between 1939 and 1944.\textsuperscript{7} Figures I and II show the annual growth of total output and of manufacturing output in the three countries. These rates moved in the same direction in all three countries for 1941 through 1943. However, whereas growth of manufacturing in Mexico lagged behind that in the other two countries through 1943, it surpassed theirs in 1944 and 1945. Canada and the U.S. continued to move in tandem in those two years, with negative rates being recorded in the U.S. in 1944 and 1945 and in Canada in 1945. The effect of the end of full-scale mobilization of industry in the U.S. is seen most dramatically in the production index for transportation equipment (1933-1939=100), which fell continuously in 1945 from 706 in January to 218 in December.\textsuperscript{8}
The war period is spoken of as a turning point for the Mexican economy. This is certainly reflected in the growth rates of overall output and of manufacturing output. Our focus here will be on both that growth and the constraints that were experienced, particularly during the early years of the war.

At the outbreak of hostilities in Europe, manufacturing production in Canada and the United States had only returned to the level of 1929 and both countries had considerable unemployment. In contrast, manufacturing output in Mexico has expanded by 61 percent in the decade from 1929 to 1939. Nonetheless, observers are unanimous in their judgement that considerable excess capacity existed in Mexico on the eve of the Second World War.\(^9\) Labour surpluses quickly turned into labour shortages in Canada and the United States with the expansion both of the economy and of the armed forces (a peak of 779 thousand military personnel in Canada and 12.1 million in the U.S.).\(^10\) Again, Mexico provides the contrast. While its population grew in the decade of the 1930s at a rate of 1.7 percent per year, employment grew annually by only 1.2 percent. Moreover, 63 percent of Mexican employment was still in agriculture in 1940, as opposed to only 20 percent in the U.S. and 29 percent in Canada. The differential in labour utilization between the U.S. and Mexico gave rise to the initiation in August 1942 of the \textit{bracero} program, under which Mexican workers could work in agriculture and on the railroads in the U.S.\(^11\)
In all three countries rapid economic growth led to major bottlenecks which were reflected in either price increases (to the extent that these were permitted in the United States and Canada) and/or shortages. While shortages may be endured with a grumble during peacetime, certain shortages could not be tolerated during the period of full-scale military mobilization when U.S. and Canadian forces and those of the European allies had to be fully equipped and when, as well, the Hemisphere had to be defended from attack. In the circumstances, co-ordination of production and resource flows was indispensable. As Franklin Roosevelt observed in December 1941:

Through brute force and enslavement, Hitler has secured a measure of integration and coordination of the productive resources of a large part of the Continent of Europe. . . . We must demonstrate that integration and co-ordination of the productive resources of the Continent of America is possible through democratic processes and free consent.12

To facilitate North American defence and co-ordination of production and trade, various boards were established during the war. The first of these was the Permanent Joint Board on Defence, Canada-United States, which was established in 1940 at a moment when the ability of Great Britain to withstand German attack was in serious doubt. This was followed in 1941 by the creation of the first of the economic boards, the Joint Defence Production Committee, Canada-United States, which was superseded by the Joint War Production Committee following Pearl Harbor. Keenleyside and Brown have spoken in glowing terms of the joint Canada-U.S. economic boards: "Through the joint boards and committees . . . a machinery had been established
for the solution of almost any problem that might arise." In Mexico as well, defence came first and then economics. The Joint Mexican-United States Defense Commission was agreed on in 1940 and, following two meetings between Roosevelt and Avila Camacho in early 1943, a Mexican-American Commission for Economic Cooperation was established. The latter commission addressed not only war-related problems facing Mexico, among them balance of payments disturbances, but also the formulation of "a program of economic cooperation which would provide for the indispensable assistance of the United States to the end that the economic development of Mexico be fostered . . ."

While co-ordination may have been based on free consent, the coordinating parties were by no means meeting on an equal footing. The United States, with its more diversified industry and resource base and its greater economic, technical and military capability, was the clear senior partner in these binational alliances. In evaluating the experience it is clear that there was more true coordination with Canada, but more vigorous protection of sovereign prerogatives on the side of Mexico. The Mexicans, for example, were the first to insist on an escape clause being written into a trade treaty with the United States.

To cite just one other instance of protection of sovereignty, the Mexicans were immovable and successful in their demands that weather, communications and radar stations, to be equipped by the U.S., were to be operated jointly by American Army technicians and Mexican personnel, only until such time as the Mexicans were capable of relieving their American counterparts. Moreover, the Americans
were required to work in civilian clothes and be under the direction of Mexican Army commanders.\textsuperscript{18} In contrast, on the Canadian side, official Ottawa "appeared quite unaware of the magnitude of the projects, the breadth of penetration, and the dominant presence of the United States Army Air Force throughout the northern territories."\textsuperscript{19} It took the British High Commissioner to Canada, Malcolm MacDonald to draw attention in 1943 to the "Army of Occupation"--a term, according to MacDonald, which the Americans used to refer to themselves.\textsuperscript{20}

As for the "democratic processes" to which Roosevelt referred: while it is true that all three governments were duly elected, it is also true that what may be feasible in wartime, may be unattainable in a context of the free play of conflicting political interests. For example, two Orders in Council by the Canadian federal government established for the duration of the war collective bargaining regulations roughly comparable to those embodied in the pathbreaking U.S. Wagner Act of 1935. To the rights granted by the Orders may be given the credit for the near doubling of union membership in Canada during the war years, from 358,967 in 1939 to 711,117 in 1945.\textsuperscript{21} Similarly, Washington's desire for Mexico's full support in hemispheric defence led to a relatively rapid settlement of the extremely acrimonious dispute arising from the 1938 Mexican oil expropriation. The compensation agreement, which was not at all satisfactory to the oil companies whose propaganda campaign against Mexico continued, was reached in the month preceding the Japanese attack on Pearl Harbor. As part of the oil settlement, the United States and Mexico pledged to conclude a reciprocal trade agreement.\textsuperscript{22} Although almost a
decade of prior trade negotiation had proved relatively fruitless, within nine months of the ratification of the oil settlement a trade treaty was signed. These are but a couple instances of the drastic shifts in the ease of achievement of objectives in the face of common threat.
Foreign Trade

The shares of Mexican trade with the United States and of Canadian imports from the United States, which were already high prior to the Second World War, increased markedly during the war to the point that the United States was the preponderant trade partner of each (see Table 1). In 1943 and 1944 over 80 percent of Canada's imports came from the United States. Well over one-third of Canada's exports continued to go to the United Kingdom up until 1945, but wartime structural changes brought a change here as well: despite substantial lend-lease shipments to the U.K., 1941 was the last year in which Canadians exported more to the U.K. than to the United States. The share of Canada's exports to the U.K. fell from a crisis peak of 42.9 percent in 1940, to 29.7 percent in 1945 and 15.0 percent in 1950.24 As Table 2 indicates Mexico and Canada assumed an increased role in United States trade as well, particularly on the import side where Canada and Mexico came to provide no less than thirty percent of U.S. imports between 1942 and 1945.

[Tables 1 & 2 here]

Our concern here is neither primarily with the changed direction of trade nor its increased magnitude, but rather the arrangements governing much of that trade. While the United States was dependent on many commodities from Canada and Mexico, the latter two countries suffered from supply bottlenecks in the United States. While manufacturing output grew more rapidly in the U.S. than in either Canada or Mexico (as noted above), the U.S. was also more fully mobilized for war than Canada and far more so than Mexico. We may approximate the degree of mobilization by the level of government
expenditure as a share of total product: In Canada this went from 12.4 per cent in 1939 to a peak of 40.4 per cent in 1944,\textsuperscript{25} while in the U.S. the increase was from 18.1 per cent in 1939 to a peak of 49.9 per cent in 1943.\textsuperscript{26} In Mexico the share of government expenditures to gross domestic product never exceeded 11 per cent during the war years.\textsuperscript{27}

Mexico and Canada simply had to wait their turn until critically short supplies could be allocated to them by U.S. war administrators and actually produced by U.S. industry. This was more of a problem for Mexico than for Canada, the latter having been the only country to integrate its war production with that of the U.S.\textsuperscript{28} Nonetheless, Canada was not immune when supplies were short for U.S. war industries. R. Warren James notes that even before the U.S. entered the war, Canadian production programs were hamstrung by an inability to obtain adequate deliveries from the U.S.\textsuperscript{29} Canada was even delayed in filling a U.S. order for ships owing to a complete cut off of wide steel plates from the U.S. between August and December 1941.\textsuperscript{30} Subsequently, Canada was asked to give up thousands of tons of carbon steel and in the last quarter of 1942 more thousands of tons of alloy steel.\textsuperscript{31}

**Import Substituting Industrialization**

When the metropolis is "otherwise occupied" the opportunity for import substituting industrialization is said to arise. The curtailment of imports that tends to accompany a war provides both opportunities and limitations. The resulting effects on a country's industry are likely to be uneven, depending critically on existing capacity, capital goods
production capabilities, and availability of supplies either domestically or through imports.

If one is looking for an example of Frank's "active capitalist involution", one need look no further than Canada, where a capital goods industry already existed, as did a complex state apparatus disposed to provide large contracts and generous capital cost allowances. The situation in Canada was very different from what it had been on the eve of the First World War:

In 1914, the iron and steel and manufacturing industries in Canada were still in an embryonic state and the Canadian contribution to the Allied effort consisted mainly of food, forest and mineral products. By 1939, heavy industry had become well established.

The Royal Commission on Canada's Economic Prospects noted that because of supply limitations in the United States, "Canadian industry found itself more on its own than it had ever been before. . . . In this protected hot-house atmosphere, where costs were of relatively minor importance, secondary manufacturing grew like a beanstalk." During the war basic steel-making capacity increased by more than fifty percent, aluminium ingot-producing capacity increased five-fold and production of aircraft and parts, over thirty-fold. Among the new industries installed in Canada during the war were electronic components, synthetic rubber, roller bearings, diesel engines, antibiotics, high octane gasoline, and optical glass.

While total manufacturing production increased by 117.9 percent in Canada over the period from 1939 to 1944, production of durables, many destined for the war effort increased by 200.5 percent. In
Canada, as in the United States, transportation equipment was the leading sector, with an output expansion of 525.2 percent, while nondurables (largely consumer goods) grew by 66.7 percent, and within that category, clothing grew by 49.9 percent through 1942 and then registered declines in each of the subsequent war years.

For Mexico, the war period is spoken of by many as a period of either export-led growth or demand-led growth. Mexican exports had been in the doldrums since the 1920s. Indeed the value in U.S dollars of Mexican exports did not regain the levels achieved in the 1920s until after World War II. The growth of exports stimulated domestic demand, but was able to contribute little to the needed importation of investment goods. For Mexico, which was still in 1945 dependent on imported capital goods for one-quarter of the value of gross investment,\textsuperscript{37} the war was a period characterized principally by industrial expansion through double and triple shifting, rather than major new investments. In some instances, even keeping industry running required deliveries from the United States of new electric power plants and equipment for existing ones:

In 1943, for example, the breakdown of electric service in Monterrey caused a temporary suspension of virtually all manufacturing activity in that important industrial area. Even after service was resumed, industry had to operate at a reduced rate for some time.\textsuperscript{38}

Energy production in Mexico was only 11.8 percent higher in 1944 than in 1939. Although generation of electricity increased in 1945 by more than in the five prior years,\textsuperscript{39} capacity limitations were viewed as an impediment to economic development.\textsuperscript{40} On the matter of new
industries in Mexico, Sanford Mosk has remarked: "Uncompleted factories were a striking feature on the Mexican landscape. In some cases, the failure to get one or two pieces of equipment meant that a plant, otherwise complete, could not function."\(^{41}\)

There were instances where the U.S. actively tried to support industrial diversification in Mexico to aid in the war effort, but was unable to prevent undue delays in delivery. Discussions which commenced in early 1942 concerning the construction of a high octane aviation fuel refinery in Mexico were at least two years in bringing results despite President Roosevelt's attempts to expedite matters.\(^{42}\) A U.S. Export-Import Bank loan of $8 million was approved in 1942 to finance the purchase of equipment in the U.S. for the Altos Hornos iron and steel works at Monclova, but as equipment was unavailable, the loan could not be disbursed until 1946.\(^{43}\) Nonetheless, production began at Monclova in 1944 using an idle blast furnace and other parts which had been used in the U.S. and which were dismantled and shipped to Mexico.\(^{44}\) This is dramatically reflected in steel output which grew by 31 percent in 1945 alone, after having increased by only 22 percent over the period 1939 to 1944.\(^{45}\) The Altos Hornos mill in its initial two years of production took military orders from the U.S. and fabricated steel ship plates for the U.S. Maritime Commission.\(^{46}\)

Those firms which were established during the war years not only benefited from the assured demand of a market without import competition, but were able to count on fiscal benefits under laws enacted in 1939 and 1941 and many had access as well to financing from Nacional Financiera (Nafinsa), the state operated development bank established in 1934. Nafinsas role was a key one in Mexico's
wartime industrialization. The value of its loans and investments in industrial enterprises at the end of 1945 represented 13 per cent of that year's gross national investment\textsuperscript{47} and it held stocks or bonds of 49 corporations.\textsuperscript{48} Many of the major investments during the war involved U.S.. financing, U.S. investment and/or U.S. allocation of equipment. Nafinsa was active here as well, as it actively represented credit-seeking Mexican firms in U.S. financial markets.\textsuperscript{49}

From the establishment of the Mexican-American Commission for Economic Cooperation in 1943, industrialization in Mexico was to be a priority for the United States, with supplies being allocated above and beyond Mexico's war needs-based allocation. In line with the Commission's 1943 recommended support for cement production, "all possible aid" was given to secure the approval of the U.S. Office of Economic Warfare and War Production Board for equipment, both new and used, for two cement factories.\textsuperscript{50} Nafinsa, as well, had a hand in the expansion of cement production and by war's end held shares in the ownership of six cement firms.\textsuperscript{51} These efforts helped bring a 67 percent increase in installed capacity in the cement industry during the period 1943 to 1945.\textsuperscript{52}

The Mexican-American Commission's "Minimum 1944 Program" consisted of twenty projects, both private and public. In keeping with the U.S. commitment, U.S. export licenses were secured for practically all the materials required for these projects.\textsuperscript{53} The Commission's work was not limited to the immediate needs of the war years, but involved \textit{projections} of needed capital imports through 1948 for a Mexican program for the development of electric power and irrigation.\textsuperscript{54} Nonetheless, as the scarcity-born priority system was
relaxed, the Commission's influence diminished and as the American government's attention turned more intensively to European reconstruction, the Commission was disbanded in January 1945. 55

Prices

The experience of relatively rapid inflation in World War I together with that of rapid price increases in the initial years of World War II led both the United States and Canada to organize elaborate systems for controlling prices. Mexico, which was not fully mobilized for the war effort, did not control its prices. The following numbers show the annual percentage increase in wholesale prices in the three countries: 56

<table>
<thead>
<tr>
<th>Year</th>
<th>Canada</th>
<th>U.S.</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>9.9</td>
<td>1.9</td>
<td>2.5</td>
</tr>
<tr>
<td>1941</td>
<td>8.6</td>
<td>11.1</td>
<td>6.7</td>
</tr>
<tr>
<td>1942</td>
<td>6.2</td>
<td>13.2</td>
<td>10.2</td>
</tr>
<tr>
<td>1943</td>
<td>4.6</td>
<td>4.4</td>
<td>20.9</td>
</tr>
<tr>
<td>1944</td>
<td>2.5</td>
<td>0.9</td>
<td>22.4</td>
</tr>
<tr>
<td>1945</td>
<td>1.1</td>
<td>1.7</td>
<td>11.3</td>
</tr>
</tbody>
</table>

From mid-1942 through 1945, price increases were substantially checked in Canada and the U.S., while in Mexico prices were climbing rapidly from 1942 through 1945. Crop Failures were a contributing factor in Mexico's inflation in 1943 and 1944. 57 Price increases in the latter year would no doubt have been even more rapid had Mexico not recorded a trade deficit in 1944 equal to 4.9 per cent of its gross domestic product. Price increases in Mexico also reflected the inability of a shortage-plagued Mexican industry to keep pace with the growth of demand. These price increases also triggered a shift in the
functional distribution of income, with the share of net domestic product received by profits increasing annually from 26.2 percent in 1939 to 41.3 percent in 1945.\textsuperscript{58}

The United States extended its system of price controls to both exports and imports. For numerous commodities the U.S. even entered long-term fixed price contracts with many Latin American countries for the purchase of a nation's entire exportable surplus of a commodity.\textsuperscript{59} For example, Mexico and the U.S. agreed in May 1941 (prior to the oil settlement), that Mexico would provide the U.S. with its entire exportable surplus, not absorbed by other American republics, of antimony, arsenic, bismuth, cadmium, cobalt, copper, fluorspar, graphite, henequen, lead, manganese, mercury, mica, molybdenum, tin, tungsten, vanadium, and zinc at prices to be negotiated with the Mexican government.\textsuperscript{60} In 1941 these products amounted to no less than 48.8 per cent of Mexican exports; in 1945, 81.7 per cent. In 1942 Mexico undertook to limit the widespread domestic use of rubber products in exchange for an American commitment to purchase, at a price to be periodically adjusted, Mexico's entire exportable surplus of rubber until the end of 1946.\textsuperscript{61} Mexico's exports of rubber jumped from $2.1 million or 1.1 per cent of total exports in 1942 to $7.1 million or 2.5 per cent of total exports in 1945.\textsuperscript{62} In 1943, Mexico supplied over ten per cent of the drastically reduced rubber imports of the U.S.\textsuperscript{63} The following data illustrate the marked difference in price increases in percent for several commodities during 52 months of World Wars I and II (data ending in November 1918 and December 1944):\textsuperscript{64}
<table>
<thead>
<tr>
<th></th>
<th>World War I</th>
<th>World War II</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>52 months</td>
<td>peak increase</td>
</tr>
<tr>
<td>Steel</td>
<td>187</td>
<td>696</td>
</tr>
<tr>
<td>Copper</td>
<td>93</td>
<td>165</td>
</tr>
<tr>
<td>Zinc</td>
<td>73</td>
<td>346</td>
</tr>
<tr>
<td>Glass (plate)</td>
<td>81</td>
<td>271</td>
</tr>
<tr>
<td>Lead</td>
<td>106</td>
<td>195</td>
</tr>
<tr>
<td>Cotton (wholesale)</td>
<td>126</td>
<td>211</td>
</tr>
</tbody>
</table>

Of the commodities listed, copper, lead, and zinc were among the exports of both Canada and Mexico to the U.S. Although metals are a critically important war material, the mining sector of the Mexican economy registered the lowest growth of any sector between 1940 and 1945 (1.1 per cent per year), while the real gross domestic product of the resource sector in Canada actually declined during the same period. These overall rates embrace some spectacular increases in production related to war needs (manganese and mercury in Mexico) and some substantial declines in non-essential minerals (gold and silver in Canada and Mexico). To return to copper, lead, and zinc, it would appear that the U.S. price policy, which allowed for a large increase in the price of zinc (consistent with increased need for zinc), but not of copper and lead had an influence on their output in Canada and Mexico: in both countries zinc output in 1945 was well above the 1940 level. Copper and lead output both fell in Canada, while lead output in Mexico increased only slightly.
Discrepancies in the levels at which prices were established by control authorities in the U.S. and Canada created problems for the Canadians as U.S. prices tended to be set at higher levels. This differential led to a shortage of meat in Canada in early 1942 as Canadian cattle were being exported to the U.S. where the prices were higher. The Canadian response was to have the Wartime Food Corporation, a Crown company, buy the cattle at the U.S. price up to the amount of the U.S. import quota and divert the cattle, to the extent necessary, to the domestic market at the lower Canadian price.\textsuperscript{66} In another case, the Canadians restricted the flow of wood pulp to the U.S. in 1944 as a bargaining ploy to induce the U.S. to reduce its import price of pulp.\textsuperscript{67} Canada had chosen not to establish export price controls in World War II, in part because the prices of its exports to the U.S. were subject to the controls of the U.S. Office of Price Administration (OPA). Yet, the OPA's actions were sometimes at cross purposes to Canada's desire to restrain inflation, as when the former raised import prices as a device for absorbing excess American purchasing power and hence limiting inflationary pressures in the U.S.\textsuperscript{68}

**Infrastructure Development**

What may have been the most revolutionary contribution of hemispheric defence activities was the extension of Mexico's road system by 7,500 kilometres in the years from 1941 to 1945 inclusive, an absolute quinquennium increase not matched again until 1955-59.\textsuperscript{69} The numbers don't tell the story as eloquently as maps do: the National Geographic Society May 1942 map of North America shows only one short cross-border road in Baja California, no road along either Mexico's east or west coast, only one from the United States border to
Mexico City, and only one road connecting the Gulf and Pacific coasts, from Veracruz to Acapulco. Indeed Acapulco is the only Pacific coast settlement shown to be connected with the interior by road. For Yucatan only three roads are shown: all from Merida; one to the sea and one each to the Mayan ruins of Chichen Itza and Uxmal. No road link to the rest of Mexico appeared on the map for Yucatan. The National Geographic October 1947 map of the Countries of the Caribbean shows Mexico literally transformed: a road the length of Baja California, roads down the east and west coasts, roads from several U.S. Border crossing points to Mexico City, several major Pacific coast ports connected directly to the interior, a road across the isthmus of Tehuantepec, and extension of the roads in the Yucatan, including one connecting Merida to Campeche (via Uxmal).

Support for road construction in Mexico was yet another of the provisions of the 1941 oil settlement. The $10 million U.S. Export-Import Bank loan in 1942 ($30 million had been pledged) was equal to over 30 percent of the sum Mexico spent on road construction in 1942.\(^7\) \(^0\) Transportation was a priority area for the Mexican government during the war years: its share of public investment was 57 percent during the 1939-44 period.\(^7\)\(^1\) Most of the road construction in the period consisted of main trunk lines; it was not until 1948 that a systematic program of construction of farm-to-market roads began.\(^7\)\(^2\)

The United States also turned its attention to the state of Mexican railroads. The Combined Mexican Working Party speaks of the Mexican railroads in a section titled "The Railroad Problem": they note that the railroad network had been in continuous decline since 1910.\(^7\)\(^3\)
The work of the U.S. Railroad Mission led to replacement of defective rails and ties on over 18 percent of the length of the National Railroads.\textsuperscript{74}

The exigencies of war led the U.S. to finance completely and to build in less than one-half year the 2,560 kilometre Alaska Highway, two-thirds of the length of which is in Canada. The route chosen through Alberta, rather than British Columbia, reflected American concerns for defence, not Canadian concern for maximizing postwar use of the road. Another major undertaking was the Canol project, which involved, \textit{inter alia}, construction by the U.S. government at no direct cost to Canada of a 960 kilometre oil pipeline and service road from Norman Wells in the Northwest Territories to Whitehorse in the Yukon. The route over the uncharted Mackenzie Range reached elevations over 1500 metres at two points.\textsuperscript{75} Approval for this project of the U.S. War Department was secured within three weeks of its being presented to the Canadian Government, despite serious reservations on both sides of the border.\textsuperscript{76} The U.S. Secretary of the Interior Harold Ickes viewed the project as "impractical and wasteful" and was concerned about possible hazards in the operation of the pipeline.\textsuperscript{77}

\textbf{Conclusion}

The Second World War brought Canada and the U.S. and Mexico and the U.S. closer than they have ever been before or since. While these relations continued to be those between unequals, there was, to an important extent, during that period a sense that the well-being of each was necessary to the well-being of all. The needs of war led the U.S. into long-term contracts to purchase a wide-range of primary
commodities at fixed prices. The spirit born of war led the Mexican-American Commission for Economic Cooperation to suggest in its 1943 report that "the days of economic imperialism . . . are past," to be replaced by aid to "new industries primarily designed to serve Mexico's own needs."\textsuperscript{78}

The contribution of the war in Mexico was not in the expansion of major industries, but rather in setting the stage, physically, psychologically, and organizationally for import substitution. Improvements in transportation and communications provided the springboard for post-war expansion. War-time production and supply conditions significantly altered attitudes about the possibilities of industrial success, particularly if imports were to be controlled. For Canada, the war brought major industrial expansion, a definitive shift in economic orientation away from the United Kingdom toward the United States, and a new-found wariness about initiatives by its southern neighbor.

The habit of hemispheric cooperation did not end with the war, but the intensity diminished significantly, particularly in the face of the need for European reconstruction. The wartime solidarity to meet a common threat has not been replaced by a comparable peacetime commitment to foster development. Washington was eager to abandon market prices for commodities in order to reduce the cost of waging war. It is not disposed today to make comparable concessions to assure that the human needs of development are met.

The future is no more likely than the past to provide us with a "moral equivalent of war." Building the new order, whether it is cooperation on a North American or global scale, will still require hard
bargaining and horse-trading. The value of an examination of the wartime experience is to demonstrate that many avenues that are fiercely resisted today, were considered entirely fitting and proper when one's fate was perceived to be in the balance. The wartime experience should serve to remind us that more can be accomplished and, in fact, has been when the determination was present.
Notes


4 See also Myron J. Frankman, "Western Hemisphere Economic Cooperation: The United States and the Andean Countries During the Second World War," presented at the annual meeting of the Canadian Association for Studies in International Development, Hamilton, Ontario, June 1987. H. L. Keenleyside, the emissary of Canadian Prime Minister Mackenzie King to Franklin Roosevelt, wrote in 1940: "It is no longer any secret that the Government of the United States has been giving detailed and serious consideration to the possibility of re-organizing the whole economic life of the Western Hemisphere." Cited by J. L. Granatstein, "Getting on With the Americans: Changing Canadian Perceptions of the United States, 1939-1945," *Canadian Review of American Studies*, 5, No.1, 1974: 7.

5 Cárdenas is said to have proposed to Roosevelt an inter-American economic boycott against aggressors. Karl M. Schmitt, *Mexico and the United States, 1821-1973: Conflict and Coexistence*, New York: John Wiley and Sons, Inc., 1974: 182. Mexican labour gave its support for the war effort as well; as Vicente Lombardo Toledano, head of the Confederación de Trabajadores Mexicanos, has remarked: "Tenemos antagonismos con el imperialismo norteamericano; pero en este momento el peligro mayor no es el imperialismo Yanqui, sino el imperialismo nazi, es el más peligroso de todos; contra ese peligro mayor, asociándonos con nuestros adversarios históricos y tradicionales, vamos a luchar." Lombardo Toledano in James W. Wilkie and Edna Monzón de Wilkie, *México visto en el siglo XX: entrevistas de

6 Ibid.: 189.


8 SAUS, 1946: 811.

9 "... algunas fábricas de hilados y tejidos con maquinaria de la segunda mitad del siglo XIX, que estaban paradas porque ya no servían para nada, se pusieron a trabajar nuevamente porque exportábamos telas de algodón y de lana al precio que quisimos y en cantidades que nunca habíamos soñado." Jesús Silva Herzog in Wilkie & Wilkie: 681. See also Morris Singer, Growth, Equality, and the Mexican Experience, Austin: University of Texas Press, 1969: 15.

10 CYB, 1945: 736 and U.S. Dept. of Commerce, Historical Statistics of the United States: Colonial Times to 1957, Washington, 1960: 736. The proportion of armed forces personnel (at its peak) to the civilian labour force was 0.17 in Canada and 0.22 in the U.S.

11 The peak number of Mexican agricultural workers in the U.S. in 1944 was 68,000 while the quota established by the U.S. for the same year for Mexicans working in the railroads was 50,000. FRUS 1945: 1138, 1141. The total comes to between 1.6 to 1.9 percent Mexican employment (estimate based on employment figures for 1940 and 1950). The total number of Mexicans recruited to work in the U.S. during the war years is said to have been 350,000, 60 percent of whom worked in agriculture and the balance on the railroads. Robin A. Humphreys, Latin America and the Second World War. II. 1942-1945, Oxford: Athlone, 1982: 238, n. 74.

13 H.L. Keenleyside & G. S. Brown, Canada and the United States: Some Aspects of Their Historical Relations, New York: Alfred A. Knopf, 1952: 378. Granatstein provides an alternative viewpoint; in referring to the establishment of the Permanent Joint Board of Defence by the 1940 Ogdensburg Agreement, he observes: "Seen in retrospect, the Agreement marked the shift from Canada as a British dominion to Canada as an American protectorate." (8)

14 Among the other bodies created were the Material Coordinating Committee (United States-Canada;1941), the United States-Canada Joint Exports Committee (1943), the War Manpower Commission (U.S.-Mexico; 1943) and the Mexican-United States Agricultural Commission (established in 1944 on the recommendation of the Mexican-American Commission for Economic Cooperation). S.D. Pierce & A.F.W. Plumptre, "Canada's Relations with War-Time Agencies in Washington," Canadian Journal of Economics and Political Science, 11 1945: 402-419. See also James.

15 "Text of Report of Mexican-American Commission for Economic Cooperation," The Department of State Bulletin, 9, July 17, 1943: 40. The Commission was mandated solely to present a report by mid-1943. Following its recommendation, a new Commission was established in September 1943. For a brief time it bore the name Mexican-American Industrial Commission, but that was almost immediately changed to the name of the predecessor commission. The "balance of payments disturbances" referred to here is the accumulation of foreign exchange holdings by the Bank of Mexico, arising from Mexico's inability to spend freely on imports. These reserves had increased by US$44.8 million in 1942; over the period 1940 to 1945 the cumulative increase was $328.7 million, an amount equal to 88 percent of the value of Mexico's imports in 1945. As some had anticipated, it didn't take long for these accumulated reserves to be dissipated: the full amount was gone by the end of 1948, a year in which Mexico had the first of its post-war peso devaluations. Combined Mexican Working Party (CMWP), The Economic Development of Mexico, Baltimore: The Johns Hopkins Press, 1953: 348-52.
Granatstein, 13-14, refers to the concerns expressed by Mackenzie King and others about Canadian sovereignty and then questions whether King did enough to counter growing American penetration.


Easterbrook and Aitken: 569.

Schmitt: 187.


Urquhart and Buckley: 183. From 1921 to 1931 Canada exported more to the U.S. than to the U.K. in every year but two. The establishment of Imperial Preferences in 1932 had tipped the balance back in favor of exports to the UK for most of the rest of the 1930s.


SAUS, 1947, 273.

CMWP, 336.
A distinction is made in the report between primary and secondary manufacturing; the former industries being those supplied by staple extractive industries and the latter involving higher stages of processing.

This severely understates the importance of imported capital goods as "gross investment" includes far more than the cost of machinery. A more representative statistic is the share of imports in total capital goods supplies, which was to have been two-thirds as late as 1950. G.K. Helleiner, *International Trade & Economic Development*, Harmondsworth: Penguin Books, 1972: 102.

Installed electrical capacity in Mexico remained constant from 1940 to 1943 and by the end of 1945 had expanded by only 5.9 percent (*50 Años*, 74), while from 1940 to 1944 installed capacity increased in the U.S. by 21.8 percent (*SAUS, 1947*: 481) and in Canada by 22.4 percent (*CYB 1947*: 487).

41 Mosk: 278.

42 Lloyd Gardner, *Economic Aspects of New Deal Diplomacy*, Madison: University of Wisconsin Press, 1964: 206 and Mosk: 86. The delay was partly attributable to support which the oil companies enjoyed in the State Department. Roosevelt wrote the following to his Secretary of State in February 1943: "I cannot see the relationship between the immediate need and the 'clarification of general petroleum policy'... The octane gasoline is solely for war purposes. The United Nations need it. They ought to have it." *Foreign Relations of the United States: Diplomatic Papers* (1943), VI, 455. Hereafter *FRUS*.

43 Mosk: 142.


48 Blair, 213.

49 Blair, 212.

50 *FRUS*, 1943, VI, 421.
Blair, 216

50 Años, 89.


Ibid.


Mosk, 276.

CMWP, 178. Labour's share fell annually from 30.5 to 22.6 percent.


FRUS (1941), VII, 406.

Ibid., 1942, VI, 484-85.

CMWP, 360, 362.

Ibid., 360 and SAUS, 1947, 906.


66 The action reduced total cattle exports to the U.S. in 1943-46 to one percent of the 1940-42 total. James, 63-64.

67 Harris, 212.

68 Ibid., 211.

69 50 Años, 99.

70 CMWP, 191, 196.

71 Ibid., 84.

72 Ibid., 94.

73 Ibid., 89. Readers are referred to Juan José Arreola’s short story "El Guardagujas" in Arreola, Confabulario, Mexico City: Fondo de Cultura Económica, 1966: 85-91.

74 CMWP, 90-91, 310.


78 Cited in Gardner, 205.