New Oil and Natural Gas Landscape under USMCA

–Energy Provisions and Implications for Oil and Gas Business in North America-

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1 Introduction

The United State-Mexico-Canada Agreement (USMCA), which replaced the North American Free Trade (NAFTA), entered into force on July 1, 2020. Former U.S. president Donald Trump delivered his initial promise to renegotiate NAFTA during the presidential campaign. After two-year negotiations, for the first time in over twenty years, the North American economic activities would develop under the new rules. The launch announcement gathered attention on what Trump claimed to be critical, such as rules of origin for automotive goods and labor provisions. Most of the studies of USMCA focus on such provisions and rules on digital trade which represent modernization of NAFTA.[1] The new rules over the energy sector, meanwhile, were not in the spotlight despite the interesting change, that is, NAFTA's "Energy" Chapter (Chapter 6) disappeared from the USMCA.

The primary awareness of the Energy chapter dates back to the Cold War era. When faced with the oil crisis in the 1970s, the U.S. realized that its dependence on Middle Eastern oil was a major national risk. During the NAFTA negotiations, the U.S. pursued efforts to secure oil supply as its bipartisan priority. The major objective of the U.S., securing oil from Canada and Mexico, was, thus, clearly reflected in the energy-related provisions, notably the "energy proportionality clause" discussed later in detail (Clarkson & Mildenberger 2011).[2]

At the time of the USMCA negotiations, however, the three North American countries had experienced dramatic changes in their energy sectors: the U.S. shale revolution, Canada's oil sands development, and Mexico's constitutional reform.[3] Especially, the U.S. shale revolution did not only solve

[1] 参議院調査情報担当室「USMCA（新 NAFTA）の注目点~米国と各国との間の貿易交渉を検証する一材料として~」, https://www.sangiin.go.jp/japanese/annai/chousa/keizai_prism/backnumber/h31pdf/201917802.pdf (Accessed November 24, 2021) and Center for Strategic and International Studies. "The Road to Ratification: The U.S. ITC's Economic Analysis of the USMCA" https://www.csis.org/analysis/road-ratification-us-itcs-economic-analysis-usmca (Accessed November 24, 2021).

[2] The U.S. energy security policy mainly targeted oil because the country had been more self-sufficient in coal and natural gas resources. Fig. 2 shows the U.S. energy trade flows with its North American neighbors in 2019. Crude oil and petroleum products are still the main products although natural gas had been more prominent in recent years.

[3] As of 2019, the U.S. and Canadian oil production roughly doubled compared to the early 1990s (Fig. 1). Mexico had long suffered declining oil production, but the constitutional reform in 2013 had attracted international attention to Mexico's unexplored resources.

the long-term U.S energy security concerns by promoting oil self-sufficiency but also had multiple impacts on the world energy market.[4] As Fig. 1 and Fig. 2 show, U.S. net oil imports noticeably decreased since 2010. The U.S. has increased its export volumes to Canada and Mexico, indicating its new role as an oil exporter[5].

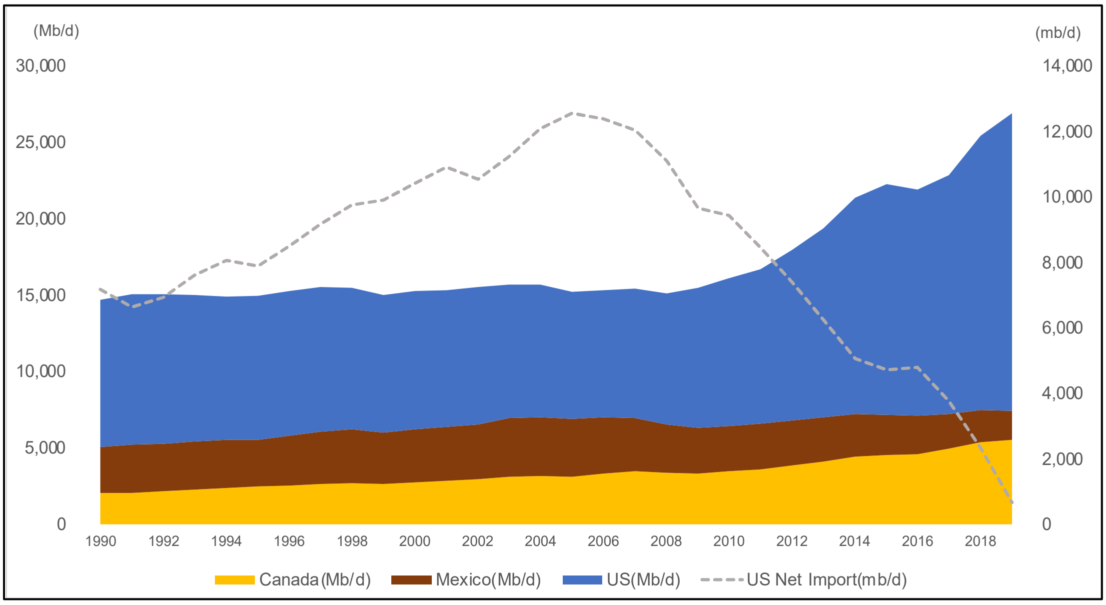

Fig. 1 Oil production in USMCA's parties and U.S. net oil import from 1990 to 2019

Source: U.S Energy Information Administration

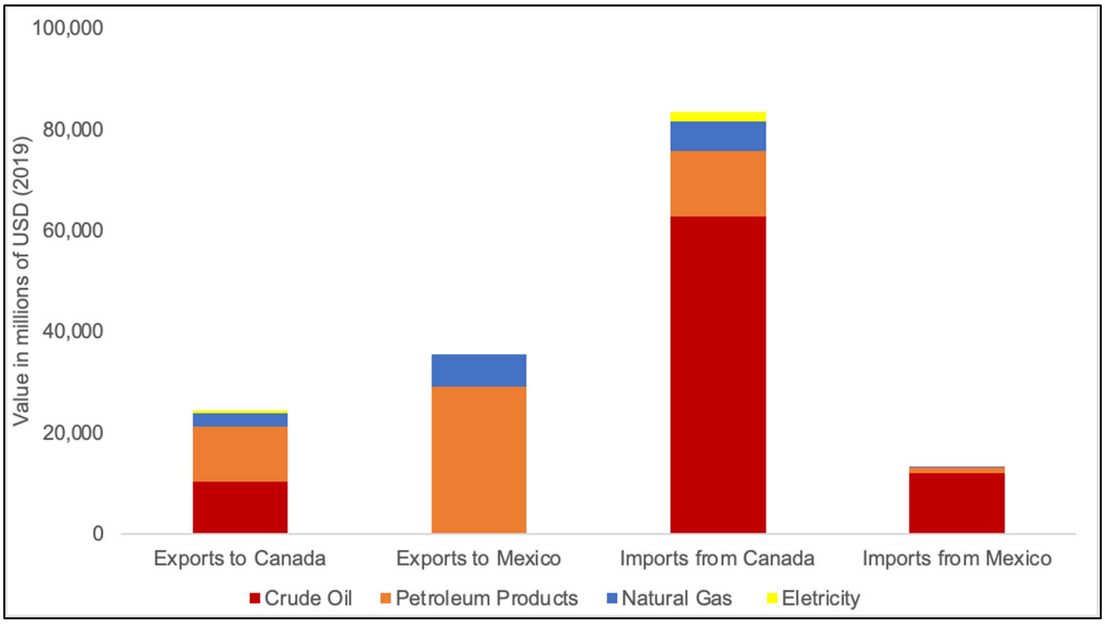

Fig. 2 Energy Trade Flow between North American Countries in 2019

Source: US Census Bureau[6]

[4] For details, see O'Sullivan (2017) and Yergin (2020).

[5] The share of U.S. oil in Canada's oil import grew from 10% to 80% over the last decade. For Mexico, see Section 3. Canada Energy Regulator. "Market Snapshot: Crude Oil Imports Decreased in 2020, and so Did the Cost." https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/market-snapshots/2021/market-snapshot-crude-oil-imports-decreased-in-2020-and-so-did-the-cost.html (Accessed November 24, 2021).

[6] This graph refers to Mildenberger & Stokes (2021).

The U.S. shale revolution led its members to reconsider potential energy cooperation in North America.[7] Canada and Mexico began to claim the increasing importance of regional energy security because fracking did not only promote U.S. oil and natural gas self-sufficiency but also increased their energy imports from the U.S. (O'Sullivan 2017).[8] In recent years, the North American countries have actively pursued efforts to expand the regional energy market by constructing transportation infrastructures, such as the U.S.-Canada Keystone XL Pipeline and the U.S.-Mexico Wahalajara System.[9] However, energy protectionism in Mexico has developed at a rapid pace while environmental and indigenous communities have opposed the pipeline construction in the U.S. and Canada. Joe Biden's presidency heightened additional uncertainty as to future energy cooperation in North America.

The study of the new energy provisions in USMCA is a key to look at what the three member countries learned from NAFTA's experiences described above, the goals they are aiming for, and the challenges they may face in the future. Addressing the question "What kind of energy landscape does the new energy-related provisions create?" has important implications for energy policy development in North America.

This paper reviews the major points of the USMCA's energy provisions and examines how the North American energy environment would develop under the new rules. In the next section, the focus is on Canada and Mexico. Compared to NATFA's provisions, the noticeable amendments occurred in the USMCA provisions regarding Canada. Canada has been a major energy supplier for the U.S. because NAFTA's provision obliged Canada to export fossil fuels to the southern neighbor. With the onset of the shale revolution, however, the U.S. no longer has severe energy security concerns. The perceptional change of the U.S. led to the modification of NAFTA's provisions regarding Canada. Meanwhile, although no significant

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7 Congressional Research Service. "Cross-Border Energy Trade in North America: Present and Potential." https://sgp.fas.org/crs/misc/R44747.pdf (Accessed November 24, 2021) and United States Government Accountability Office. "North American Energy Integration: Information about Cooperation with Canada and Mexico and among U.S. Agencies." https://www.gao.gov/assets/gao-18-575.pdf (Accessed November 24, 2021).

8 The idea of aiming for energy independence through energy trade between the three North American countries is called "North American Energy Independence." For the views of Canada and Mexico about this idea, see The Globe and Mail. "For Mexico and Canada, There's Room to Grow." https://www.theglobeandmail.com/opinion/for-mexico-and-canada-theres-room-to-grow/article5698332/ (Accessed November 24, 2021).

9 Congressional Research Service. "Keystone XL Pipeline: Overview and Recent Developments." https://crsreports.congress.gov/product/pdf/R/R43787/8 (Accessed November 24, 2021) and US Energy Information Administration. "U.S. Natural Gas Exports to Mexico Set to Rise with Completion of the Wahalajara System." https://www.eia.gov/todayinenergy/detail.php?id=44278 (Accessed November 24, 2021).

change occurred in the provisions regarding Mexico, it is worth noting that Mexican president Andres Munuel Lopez Obrador (AMLO), who came into power during the USMCA's negotiation, claimed to preserve Mexican sovereignty in the energy sector and inserted the protectionist provisions which are more prominent than NAFTA's. Section 3, giving consideration to recent developments, looks at how the independent yet simultaneous U.S. engagement with Canada and Mexico could develop under the new USMCA provisions. Finally, this paper concludes with a discussion on the USMCA's implications for North American regional cooperation.

2 Energy-Related Provisions of USMCA

NAFTA superseded the United States-Canada Free Trade Agreement (USCFTA) signed in 1988 by having Mexico, which hoped to attract foreign investment, as a new party. Cameron and Tomlin (2000) argue that NAFTA's negotiators from the U.S. and Canada perceived Mexico as a latecomer to the established USCFTA. With this background, although the impetus for NAFTA was designed to facilitate free regional trade among the three countries, the agreement contained a mixture of independent provisions specific to U.S-Canada and U.S-Mexico. Clarkson (2008) describes this regional characteristic as "double bilateralism." The USMCA clearly reflects this "double bilateralism" structure of NAFTA. The energy provisions are no exception. Rather, the three countries were particularly eager to put their own interests in the energy provisions. Despite the elimination of the Energy Chapter, energy-related provisions lie scattered in different USMCA chapters. The U.S. had negotiated with Canada and Mexico independently to set these rules. This section summarizes each of them with careful attention to the changes from NAFTA.

2.1 U.S.-Canada Provisions

（1）Elimination of proportionality clause

The USMCA removed NAFTA's controversial provision known as the "energy proportionality clause" in Article 605. The clause required Canada to maintain oil and natural gas export to the U.S. "as compared to the proportion prevailing in the most recent 36-month period." Under this rule, Canada's oil producing states, especially Alberta, could not reduce export volumes to the U.S. and could not provide their oil to eastern Canada's importers even if an international oil crisis caused a supply shortage in Canada.

The U.S. raised the original idea of the proportionality clause. The reason is that, at the time of the NAFTA negotiations, the U.S. had energy security concerns due to increasing demand for foreign oil. No similar provision exists in other trade agreements including NAFTA's provisions between the U.S. and Mexico. Canada did not violate the obligation since the inception of NAFTA, but there was growing criticism against the clause in Canada because the rule forced the country to prioritize U.S. energy security rather than Canada's.[10] In recent years, U.S. and Canadian environmental groups also began to view the clause as a problematic factor of continuous oil sands exploration and increasing oil export.[11]

Canada proposed to remove the proportionality clause at the renegotiation; the U.S., which had once requested uninterrupted access to Canadian resources, did not ask to maintain the clause. The American Petroleum Institute (API), a lobbying group representing the U.S. oil and natural gas industry, had stated to the U.S. government that the country no longer needed the clause.[12] In light of the original purpose of the proportionality clause, the elimination demonstrates the revolutionary change in U.S. energy security perceptions after the shale revolution.

（2）Rules of origins for diluent

The rules of origin in the USMCA drew much attention regarding their impacts on automotive trade, but important changes can also be found in the energy sector, especially the rules for diluent. Canadian exporters of crude oil blend diluents to enable pipeline transportation. Canada imports the diluents from several countries–Peru, Bolivia, and Pakistan–and stores them together in domestic tankers. Such procedures made it difficult for Canadian oil exporters to prove the origin of diluents for tariff exemption.[13] Crude oil exporters, thus, accepted tariff payments for approximately 65% of crude oil exports, which is estimated to have amounted to $60 million a year.[14]

Against the backdrop of increasing crude oil export to the U.S and stagnant oil prices in recent years, the cost of tariffs became more damaging for the Canadian oil industry. Diluent transportation faced one of the few remaining tariff barriers between the U.S. and Canada; therefore, for the Canadian side,

[10] Gordon Laxer and John Dillon. "Over a Barrel: Exiting from NAFTA's Proportionality Clause." https://s3-us-west-2.amazonaws.com/parkland-research-pdfs/overabarrel.pdf (Accessed November 24, 2021).
[11] The Numbers. "The New NAFTA – What's the Deal with Energy." https://behindthenumbers.ca/2018/11/21/the-new-nafta-whats-the-deal-with-energy/ (Accessed November 24, 2021).
[12] Trusted Energy Intelligence. "New NAFTA shows U.S. no longer needs Canadian oil guarantees." https://www.jwnenergy.com/article/2018/10/3/new-nafta-shows-us-no-longer-needs-canadian-oil-gu/ (Accessed November 24, 2021).
[13] Global Affairs Canada. "The Canada-United States-Mexico Agreement: Economic Impact Assessment." https://www.international.gc.ca/trade-commerce/assets/pdfs/agreements-accords/cusma-aceum/CUSMA-impact-repercussion-en.pdf (Accessed November 24, 2021).
[14] Government of Canada. "Energy Provisions Summary." https://www.international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/cusma-aceum/energy-energie.aspx?lang=eng (Accessed November 24, 2021).

updating the rules for diluent was the main goal during the USMCA negotiations.[15]

In the outcome of the USMCA negotiations, the parties assented to the exemption of the rules of origin for diluents so far as the diluents do not account for more than 40% of crude oil export volumes.[16] This update technically eliminates the tariff on diluent because the agent generally accounts for 30% of crude oil export volumes. The upper limit in the USMCA presumably modeled the Trans-Pacific Partnership which both the U.S. and Canada joined.[17]

（3） Exemption of Investor-State Dispute Settlement

The USMCA also amended the investment provisions. Canada entirely withdrew from the investor-state dispute settlement (ISDS) mechanism stipulated in NAFTA Chapter 11. The ISDS mechanism allows a party's investors to sue another party's government. An investor can launch an international arbitration consisting of arbiters agreed upon by the parties when a party's government is found to discriminate against an investor or impede its ability to earn profits.[18]

According to the Canadian Centre for Policy Alternatives, a Canadian think tank, Canada had been sued 41 times–48% of all cases–from NAFTA's launch in 1994 to January 2018.[19] Canada had paid out more than $314 million for investors' damages and legal costs. Not only had ISDS caused economic costs, but the Canadian side found it problematic that the companies used ISDS as a coercive tool to pressure the Canadian government. Canada thus made a claim against the economic and political costs of ISDS and sought to withdraw from ISDS at NAFTA renegotiations. Although U.S. industry initially opposed Canada's request, the USMCA reflected Canada's concern. As a result, the USMCA replaces ISDS except in certain causes regarding fossil fuel investments between the U.S. and Mexico.[20]

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[15] Financial Post. "Canada's Oilpatch Pays America $60 Million a Year to Export Crude – And New Trade Deal May Not Help." https://financialpost.com/commodities/energy/canadas-oilpatch-pays-america-60-million-a-year-to-export-crude-and-usmca-may-not-help (Accessed November 24, 2021).

[16] U.S. Department of Commerce. "Transporting Alberta Oil Sands Products: Defining the Issues and Assessing the Risks" https://crrc.unh.edu/sites/default/files/media/docs/noaa_oil_sands_report_09.2013.pdf (Accessed November 24, 2021).

[17] The U.S. decided to withdraw from TPP in January 2017. See Law 360. "Opportunities for the Oil Industry in NAFTA Renegotiations." https://www.thompsonhine.com/uploads/1137/doc/Opportunities_For_The_Oil_Industry_In_NAFTA_Renegotiations.pdf (Accessed November 24, 2021).

[18] Article 1123 of NAFTA's Chapter 11 rules that the Tribunal comprises three arbitrators, one appointed by each of the disputing parties and the third appointed by agreement of the disputing parties.

[19] Scott Sinclair. "Canada's Track Record Under NAFTA Chapter 11." https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2018/01/NAFTA%20Dispute%20Table%20Report%202018.pdf (Accessed November 24, 2021).

[20] For investment during NAFTA era, the USMCA Chapter 14 rules that the Parties can access ISDS three years after NAFTA's termination.

2.2 U.S.-Mexico Provisions

（1）Mexican sovereignty over domestic resources

The new agreement kept some of the NAFTA Chapter 6 provisions regarding Mexican sovereign right in USMCA Chapter 8. Chapter 8 stipulates that: in Section 1, “the parties confirm their full respect for sovereignty and their sovereign right ... in accordance with their respective Constitutions and domestic laws”; in paragraph (a) of Section 2, the U.S. and Canada recognize Mexico’s “sovereign right to reform its Constitution and its domestic legislation”; and in paragraph (b) of Section 2, “Mexico has the direct, inalienable, and imprescriptible ownership of all hydrocarbons in the subsoil of the national territory ... pursuant to Mexico’s Constitution.” As in NAFTA, the USMCA confirms the special treatment for Mexico’s sovereign right on its domestic resources.

Mexico’s exclusive right in Chapter 8 stemmed from Article 27 and 28 of the Mexican Constitution, which restricted foreign activities over Mexican territory (Hufbauer & Schott 2005).[21] As exemplified by the nationalization of Petroleos Mexicanos (Pemex), the biggest petroleum company in Mexico, the governmental control over domestic resources was inseparable from Mexico’s national identity and thus had been reflected in the Constitution. As mentioned above, NAFTA contained similar provisions concerning Mexico’s sovereignty in Chapter 6. USMCA Chapter 8 was designed to succeed the NAFTA provisions and accept Mexico’s exclusive right in the energy sector even though the agreement sought liberalization of energy trade (Herran & Poretti 2011).

It would, however, be reasonable for Mexico to remove the protectionist provisions in the USMCA given the fact that Mexico had been encouraging foreign investment in its energy sector since the 2013 Constitutional Reform. Here, current Mexican President AMLO exercised his power during the NAFTA renegotiations. President AMLO has been a prominent critic against the reform pushed through by former President Peña Nieto. During the electoral campaign, AMLO won public support by calling out the influx of foreign capital infringing Mexico’s sovereignty over energy resources. After taking office, AMLO urged the USMCA’s negotiators to keep the provisions regarding Mexico’s sovereignty on its domestic resources,

[21] Article 27 established the nation as the direct owner of oil and all hydrocarbons disregarding its form, and Article 28 sets the exclusivity of national control over strategic areas including hydrocarbons. The 2013 Constitutional Reform encouraged private investment in the oil and gas sector and electricity sector by amending both articles and Article 25, which obliges the government to promote the public and private sectors.

resulting in Chapter 8.[22]

(2) ISDS's protection for U.S. investors

As noted above, USMCA Chapter 8 recognizes Mexico's exclusive right to its domestic resources. Annex 14-E prevents abuses of such right. The Annex provides access to ISDS, abolished among three parties in the USMCA, for investment only in the hydrocarbon sector between the U.S. and Mexico.[23] The USMCA, therefore, allows U.S. companies investing in the oil and gas sector to sue the Mexican government in an arbitral tribunal in a case where investors were involved in a dispute with the Mexican government. The access to ISDS was critical for the U.S. side to protect its investors as the U.S. companies had invested heavily in Mexico's energy sector since the Constitutional Reform.[24]

(3) Licensing of Mexican energy products

In North America, the oil and natural gas trade had been liberalized to a considerable extent since NAFTA's launch. USMCA Chapter 2 outlines the principles for such free trade, but Annex 2-A sets out exceptions to the Articles restricting discriminatory measures against another party: Article 2.3 "National Treatment" and Article 2.11 "Import and Export Restrictions." Article 2.A.3 of the ANNEX authorizes import and export licensing of energy products pursuant to the Hydrocarbons Law. The listed items include petroleum products, natural gas, and propane. This Article succeeds NAFTA's Annex 603.6 which identified the hydrocarbon goods for which Mexico could grant import and export licenses. This special treatment for Mexico offers more specific measures based on Chapter 8.

3. North American Oil and Gas Trade under the USMCA

The amendments from NAFTA to USMCA demonstrate that Canada achieved its initial goals through the NAFTA renegotiation process. As for trade, Canada could successfully remove the

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[22] Reuters. "Mexico's Next Leader Says NAFTA Deal Preserves Energy Sovereignty." https://www.reuters.com/article/us-trade-nafta-mexico/mexicos-next-leader-says-nafta-deal-preserves-energy-sovereignty-idUSKCN1LC2BP (Accessed November 24, 2021).

[23] United States International Trade Commission. "U.S.-Mexico-Canada Trade Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors." https://www.usitc.gov/publications/332/pub4889.pdf (Accessed November 24, 2021).

[24] Some point out that the ISDS mechanism in the USMCA has limited efficiency compared to NAFTA's because the USMCA mandates 30-month negotiations in Mexican courts before arbitration. Such process, however, is exempted for projects contracted with the Mexican Government, which include most investments in the energy sector. In addition, Article 32.11 of Chapter 11 prevents the Mexican hydrocarbon measures from being more restrictive than other international agreements such as the CPTPP. This Article works with ISDS to protect U.S. companies' business in Mexico. See Holland & Knight. "Demystifying Energy Investment Disputes in Mexico Through the New USMCA." https://www.hklaw.com/en/insights/publications/2019/04/demystifying-energy-investment-disputes-in-mexico-through (Accessed November 24 ,2021).

proportionality clause and amend the rules of origin for diluent; as for investment, the country is no longer a part of ISDS and can avoid lawsuits from U.S. industries, especially over environmental issues. Also, President AMLO, inaugurated during the USMCA negotiations, successfully protected Mexico's sovereign right on the energy sector as promised. The USMCA's provisions clearly signals AMLO's protectionist energy policy. Given that Canada and Mexico have achieved their initial goals, what are the implications of the USMCA's provisions for the North American energy landscape? This section examines how the USMCA's energy provisions may affect the U.S.-Canada and the U.S.-Mexico relations, respectively.

Regarding Canada, the amendments to the rules of origin and ISDS would only reduce financial costs for the government and companies. The cost reduction would not have a large impact on resource trade between the U.S. and Canada. More attention, on the other hand, should be paid to the elimination of the proportionality clause because the clause determined the ratio of oil and natural gas exports from Canada. Amendment of the clause may create a new landscape for U.S.-Canada energy trade. This section argues that the impact of ongoing decarbonization in the U.S. and Canada would, with the removal of the proportionality clause, place more burdens on Canadian oil suppliers trying to increase export volumes to the U.S.

Meanwhile, the Mexican government will continue to promote the protectionist measures in its energy sector pursuant to the provisions of the USMCA. Among the USMCA parties, the U.S. has expressed more serious concerns about Mexico's energy policy than Canada because the shared border with Mexico allowed the U.S. to build a closer relationship with its southern neighbor. The ISDS mechanism, which remained effective between the U.S. and Mexico, is expected to mitigate the U.S. fears towards AMLO's protectionist policies.

3.1 Elimination of Proportionality Clause and Outlook for U.S.-Canada Oil Trade

（1）Proportionality Clause and Current Oil Export to the U.S.

The U.S. had tried to facilitate crude oil import from Canada by investing and expanding infrastructures–pipelines and railroads–to enable large-volume and low-cost transportation even before the making of NAFTA. Besides the economic and geographical advantages, the significance of Canadian oil for the U.S. laid upon the less political nature of trade with Canada, unlike the Middle East where state-owned enterprises intervened in trade with political intentions. As the proportionality clause in NAFTA prevented western Canada's suppliers from exporting to consumers in the eastern states, the large portion of crude oil produced from oil sands was forcibly directed toward the U.S., which led to building pipeline infrastructures (Fig. 3).[25]

As of 2019, Canadian crude oil accounted for 56% of total U.S. heavy oil imports. Notably, the U.S. Midwest and Rocky Mountain regions were 100% dependent on heavy oil from Canadian oil sands.[26] Even after the shale revolution reduces U.S. crude oil imports from OPEC countries, Canadian oil export to the U.S. has been gradually increasing due to its competitiveness and the advantages discussed above, confirming the important role of Canadian oil in U.S. energy supply (Fig. 4).[27]

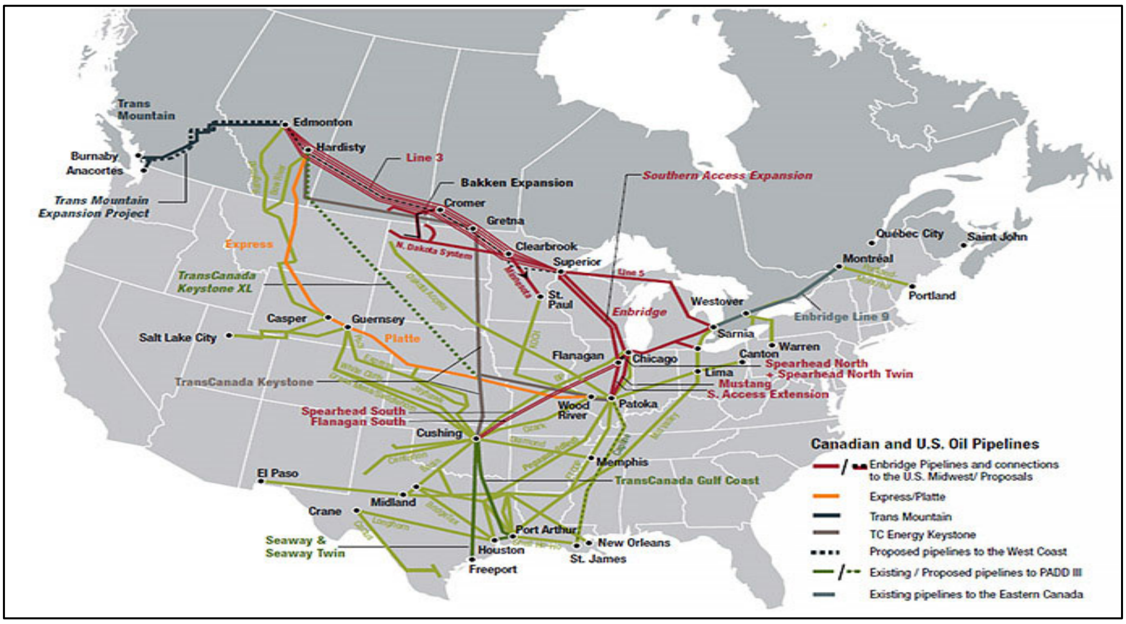

Fig. 3 U.S.-Canada Pipeline Map

Source: The Canadian Association of Petroleum Producers

[25] Clarkson & Mildenberger (2011).

[26] Venezuela had also been a major supplier of heavy oil to the United States, but U.S. import plummeted due to sanctions. Canadian oil has compensated for the decline in U.S. oil import from Venezuela. Also see Oil Sands Magazine. "Assessing America's Appetite for Canada's Crude: A look at Canadian Crude Usage by U.S. Refineries." https://www.oilsandsmagazine.com/market-insights/american-appetite-canadian-crude-usage-us-refineries (Accessed November 24, 2021).

[27] Shale (tight) oil does not compete with Canadian heavy oil, which positions Canada's oil as a significant share of U.S. oil import. U.S. Energy Information Administration. "U.S. Crude Oil Imports from OPEC Are Down, but Imports from Canada Remain High." https://www.eia.gov/todayinenergy/detail.php?id=47836 (Accessed November 24, 2021).

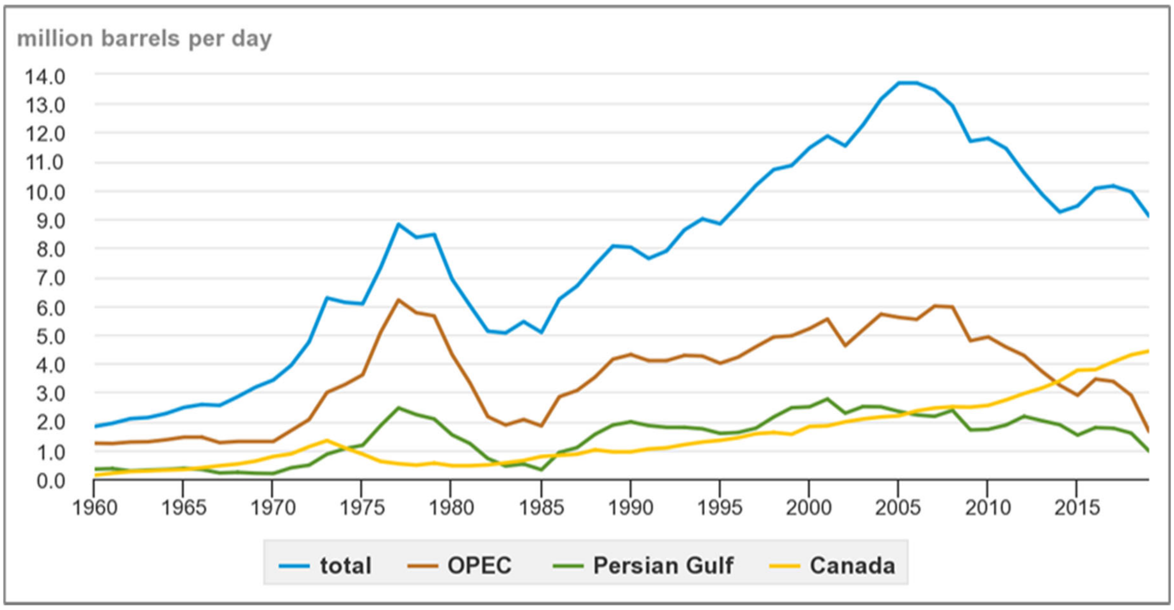

Fig. 4 International Comparison of Oil Export to the U.S. from 1960 to 2019
Source: U.S. Energy Information Administration

（2）Elimination of proportionality clause and outlook for Canada's oil export to U.S.

Canada is no longer required to export a certain proportion of oil and natural gas to the U.S. under the USMCA. Since suppliers do not need to follow the most recent three-year records, the volumes of Canadian oil and natural gas export to the U.S. can shift flexibly unlike the stable fluctuation under NAFTA. What changes, then, could the amendment to the USMCA bring about in Canada's crude oil export to the U.S?

One should first look at Canada's potential for increasing export volumes, a longstanding issue for Canada's oil industry. In recent years, the pipeline capacity in Canada has not met its increasing oil production. The stagnant export leads to a widening price gap between the Western Canadian Select (WCS) and Western Texas Intermediate (WTI). As Canadian provinces earned royalty income from the export of oil, this problem was not just for the oil industry[28]. The producers in Alberta, for instance, had to reduce oil outputs to prevent excess inventories for offsetting economic losses. The strengthening of pipeline capacity, thus, has been a major goal for promoting oil export business in Canada.[29]

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[28] Brandon Schaufele and Jennifer Winter. "Measuring the Economic Impact of Alberta's Crude Oil Curtailment Policy." https://www.ivey.uwo.ca/media/3793185/iveyenergycentre_policybrief_dec2020_measuringeconimpactalbertacrudeoil_curtailment_2-9.pdf (Accessed November 24, 2021).
[29] 石油天然ガス・金属鉱物資源機構「カナダにおける原油パイプライン及びオイルサンド事業の最近の動き」、https://oilgas-info.jogmec.go.jp/_res/projects/default_project/_page_/001/007/950/1912_c_ca_oilsand_r.pdf (Accessed November 24, 2021).

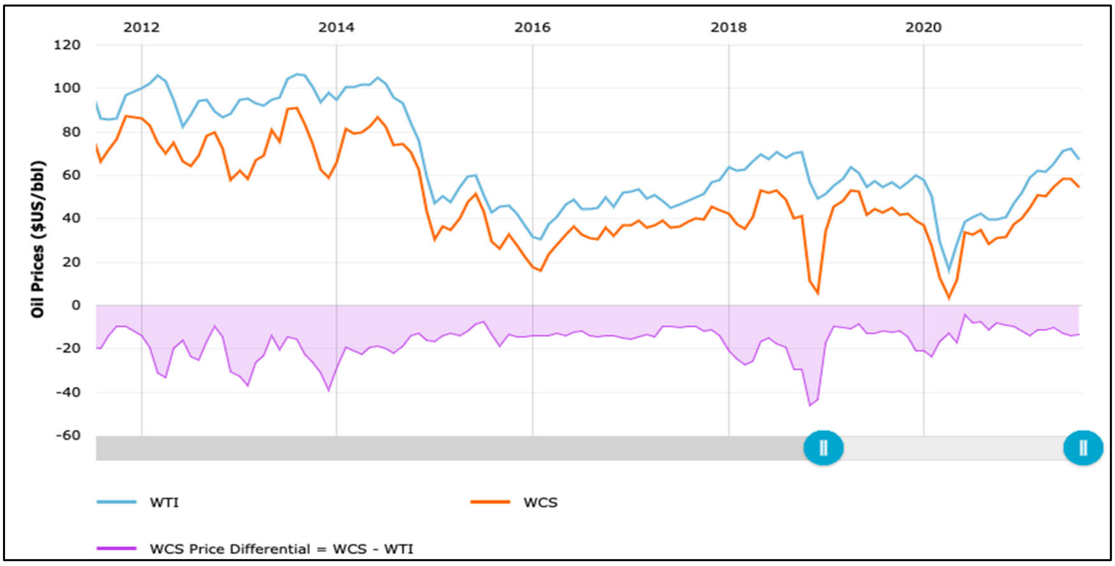

Fig. 5 WTI and WCS prices from 2011 to 2021

Source: Government of Alberta

However, the Canadian oil industry is facing a difficult situation in strengthening its export capacity with the setback of the Keystone XL pipeline project from Alberta to the Gulf Coast in June 2021 and with the environmental protests gaining momentum (Fig. 6). As well, Canada’s future oil production and export volumes have become more uncertain due to stagnant investment in oil sands and climate change policies by the federal government. Facing such uncertain future, the Canadian oil industry is likely to have a hard time maintaining the current export volumes rather than increase its export. With the elimination of the clause, future efforts include diversifying export destinations such as the Trans Mountain Pipeline expansion which will increase oil export capacity from Alberta to the Canadian west coast.

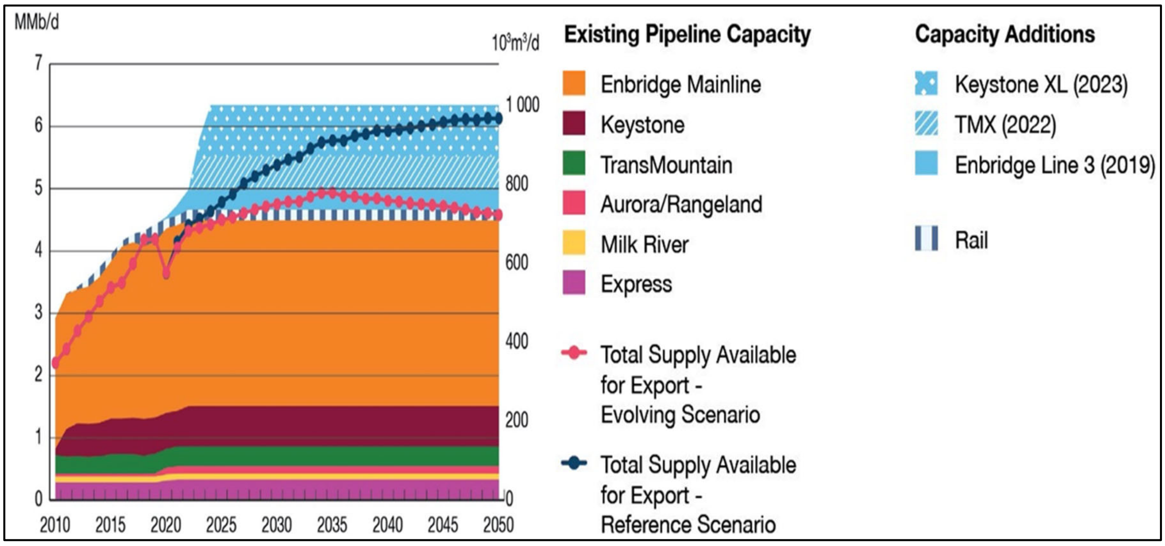

Fig. 6 Outlook for Canadian oil export and export capacity from 2010 to 2050

Source: Canada Energy Regulator

The future decline of oil export volumes will possibly become an imminent issue in the age of decarbonization. As previously pointed out, the proportionality clause mandated oil and natural gas export during NAFTA era, making it difficult for Canada to take measures for reducing export volumes and avoiding emissions in the oil and natural gas sector. The removal of the clause, therefore, might create an environment where both the U.S. and Canada can actively develop decarbonization policies that could cause adverse effects on oil sands business. Although Canada's export volumes will largely depend on U.S. policies led by Joe Biden, who came into power six months after the USMCA took effect, and Canadian policies, there will be a greater likelihood of a decline in Canadian crude oil exports if the current trend continues.

The elimination of the proportionality clause and the accelerated decarbonization trend occurred in different contexts as described above. Nonetheless, if the former backed the direction of decarbonization, the Canadian oil business would have difficulty keeping current export volumes. Assuming that the proportionality clause survives in the USMCA, the growing momentum for decarbonization could have a limited impact on Canadian suppliers. If the Trump administration stayed in power, the potential for Canadian export growth would be higher because of the strengthening of pipeline capacity and stagnation of decarbonization policies regardless of the removal of the proportionality clause. From the discussion on removing the proportionality clause presented in the previous section, it could be inferred that the U.S. and Canada did not expect the possible difficulties that Canada's oil export business would face in the USMCA. Biden's victory, however, has accelerated decarbonization in both countries, and the negative impact on oil sands business has become more imminent.

（3）U.S. and Canadian Climate Change Policy Trades and Possible Impacts on Canada's Export

Canada's crude oil export to the U.S. will largely depend on the climate change policies in the U.S. and Canada, both of which aim for carbon neutrality by 2050. Whereas the climate change policies in both countries include uncertain variables including policy feasibility and technological development, the already implemented policies provide a glimpse into the challenges that the Canada's oil sand business would face amid the decarbonization trend.

Canada's recent climate change policies have caused controversy between the ambitious federal government and oil and natural gas producers, prominently Alberta. Among such policies, Canada's carbon pricing, one of the most efficient means to reduce greenhouse gas emissions, has increased the costs for producers since the federal Parliament passed the Greenhouse Gas Pollution Pricing Act in 2018.[30] Producers had been criticizing the ambitious federal carbon tax as infringing states' sovereign rights, and claimed against a provincial carbon tax. The Supreme Court ruled, however, that the federal carbon pricing was constitutional in March 2021.[31] The judgement enabled the federal government to increase the carbon pollution price by $15 per year to $170 per tonne CO2e in 2030. The federal carbon pricing is charged if the Canadian provinces fail to create their own emission reduction mechanism which has the equivalent effect of the federal tax. The impact of carbon pricing presumably varies depending on the types of projects and tax collection methods; however, if Canadian producers suffer higher production and transportation cost due to the carbon tax, the oil sands business is likely to lose its competitiveness and be forced to reduce oil production and export.[32]

Simultaneously, the Biden administration has taken a tougher stance on the fossil fuel industry than Canada to accelerate decarbonization of its economy. The U.S. government has been aggressively regulating oil and gas exploration by halting oil and gas leasing on federal land and waters and by canceling drilling permits.[33] As of November 2021, the key policy action by the Biden administration towards Canada went no further than abandoning the permit for the construction of the Keystone XL pipeline. President Biden has never mentioned other oil sands and pipeline projects. However, the other controversial projects– the modernization of Enbridge Line 3, a crude oil pipeline between the U.S. and Canada, and Enbridge Line 5, a pipeline from Canada to Michigan–faced strong opposition from environmental groups.[34] Canadian suppliers cannot ignore the criticism against both new projects and existing infrastructures. If the heated environmental movement succeeds in halting or shutting down these infrastructures, Canada's exporters would face more severe challenges due to the lack of exporting capacity.

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[30] 石油天然ガス・金属鉱物資源機構「カナダにおける温暖化ガス排出規制：制度概要と課題」,https://oilgas-info.jogmec.go.jp/info_reports/1008604/1008775.html (Accessed November 24, 2021).
[31] Supreme Court of Canada. "References re Greenhouse Gas Pollution Pricing Act." https://www.scc-csc.ca/case-dossier/cb/2021/38663-38781-39116-eng.aspx (Accessed November 24, 2021).
[32] For the impact of carbon pricing on oil sands projects, see Branko Boskovic and Andrew Leach. "Leave it in the Ground? Oil Sands Development under Carbon Pricing." https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2920341 (Accessed November 24, 2021).
[33] Environmentalists in the Democratic Party and the Secretary of the Interior, Deb Haaland, have called for stricter regulations on fracking and may tighten fossil fuel regulations further. See The White House. "Executive Order on Tackling the Climate Crisis at Home and Abroad." https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/ (Accessed November 24, 2021).
[34] S&P Global. "Enbridge Moves Closer to Line 3 Construction While Line 5 Shutdown Is Threatened" https://www.spglobal.com/platts/en/market-insights/latest-news/oil/111620-enbridge-moves-closer-to-line-3-construction-while-line-5-shutdown-is-threatened (Accessed November 24, 2021).

The progress of climate change policies, as noted above, depends on massive uncertain factors, and it is important to note that some of them may cause positive outcomes for the oil sands industry. The federal government of Canada, for example, is funding GHG reduction technologies: carbon dioxide capture and storage (CCS) and carbon dioxide capture, utilization, and storage (CCUS). The successful deployment of these technologies would mitigate the negative impact of carbon pricing on Canada's oil sands companies.[35] Moreover, unlike the Keystone XL, Enbridge Line 3 has not been recognized as a problem by the U.S. federal government, and it began to operate in October 2021, leading to export capacity expansion as shown in Fig. 5.[36] Even in the U.S., the EIA's low oil price scenario and low oil and gas supply scenario project the decline of U.S. oil production, under which the country may once again become a net importer of oil. In addition, if the U.S. Congress passes Biden's infrastructure bill, building new infrastructures, such as roads and bridges, would require Canadian heavy oil for producing bitumen. From these prospects, it may be too early to conclude that decarbonization policies lead to lower oil exports from Canada.[37]

Despite the myriad uncertainties listed above, however, even an optimists would only say that Canadian crude oil export to the U.S. could remain at the current level at best due to the lack of transportation capacity and pressures for decarbonization. The role of Canadian crude oil, which makes long-standing contributions to U.S. economic activities and energy security, under the USMCA deserves more attention as it helps to tell how seriously both countries will take climate change measures beyond the existing collaboration.

3.2 Effects of Mexico's Energy Protectionist Policy on U.S. Business

（1）U.S.-Mexico Energy Trade after the Constitutional Reform

The Mexican Constitutional Reform in 2013 opened up a major opportunity for U.S. companies to enter into Mexico's energy market. The reform failed to privatize the state-owned oil company, Pemex, but the company started several joint ventures with U.S. oil and gas companies in the Gulf of Mexico. Mexico called for more than 100 tenders for private investment. In the first three auctions, one held in 2016 and two

[35] Government of Canada. "Budget 2021" https://www.budget.gc.ca/2021/report-rapport/toc-tdm-en.html (Accessed November 24,2021).
[36] Enbridge. "Line 3 Replacement Project Substantially Completed and Set to be Fully Operational." https://www.enbridge.com/media-center/news/details?id=123692&lang=en (Accessed November 24, 2021).
[37] Bloomberg Green. "Biden's Latest Surprise Boost for Oil Involves Lots of Asphalt." https://www.bloomberg.com/news/articles/2021-03-31/oil-sector-gets-surprise-boost-in-biden-s-roads-wells-plan(Accessed November 24, 2021) and U.S. Energy Information Administration. "Annual Energy Outlook 2021." https://www.eia.gov/outlooks/aeo/narrative/introduction.php (Accessed November 24, 2021).

held in 2017, more than $1 billion was awarded to U.S. firms.[38] With regard to trade, Mexico's market value increased as an export destination for U.S. oil and natural gas productions boosted by fracking and exploration of the Gulf of Mexico. The new transportation infrastructures have helped to increase U.S. oil and natural gas export to Mexico since the reform (Fig. 7).[39] Mexico surpassed Canada as the biggest importer of U.S. natural gas in 2015; meanwhile, U.S. oil export to Mexico amounted to $30 billion in 2018, a three-fold increase from 2008.

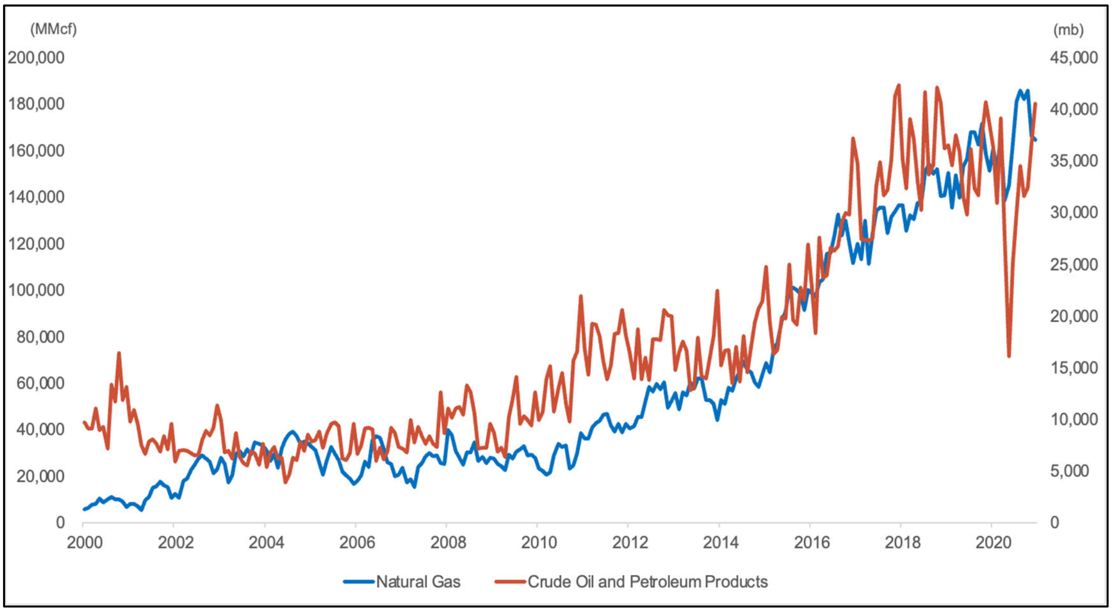

Fig.7 U.S. oil and gas export to Mexico from 2000 to 2020
Source: U.S. Energy Information Administration

However, President AMLO, who came into power by criticizing the open market policies, actively pushed back incoming foreign investment in Mexico to protect domestic energy companies, prominently Pemex. At the very beginning of his presidency, AMLO successfully inserted Chapter 8 into the USMCA which reflects Mexico's exclusive right on its domestic resources. The Mexican protectionist policies have threatened the U.S. oil and gas industry due to possible adverse impacts. Backing such concerns, Mexico leaned toward protectionist measures and began to justify its policies by referring to Chapter 8 and its

[38] The U.S. companies participating in Mexican oil and gas exploration include Murphy Oil, Chevron, Fieldwood Energy, ExxonMobil, Talos Energy. See US Department of Commerce. "Mexico - Country Commercial Guide." https://www.trade.gov/knowledge-product/mexico-n-oil-and-gas (Accessed November 24, 2021) and USAID. "Institutional Framework for Auctions in Mexico." https://www.usaid.gov/energy/auctions-mexico (Accessed November 24, 2021).

[39] Congressional Research Service. "Mexico: Background and U.S. Relations." https://fas.org/sgp/crs/row/R42917.pdf (Accessed November 24, 2021) and US Energy Information Administration. "In 2019, the U.S. Imported $13 Billion of Energy Goods from Mexico, Exported $34 Billion." https://www.eia.gov/todayinenergy/detail.php?id=45756 (Accessed November 24, 2021).

Constitution.[40]

（2）U.S. concerns about Mexico's protectionist policies

The U.S. fossil fuel industry began to feel conscious about Mexico's protectionism. The Chief Executive of the API, Mike Sommers, took the lead to express such concerns in a letter sent to U.S. government officials in June 2020, shortly before the USMCA entered into force. Following this letter, other stakeholders would send similar petitions to both the U.S. and Mexican governments. Sommers claimed that the recent measures taken by the AMLO administration undermined the success of the USMCA. He encouraged the U.S. government to use diplomatic channels to urge Mexico to assure the openness of energy markets.[41] Also, Sommers described AMLO's energy policy as "inconsistently applied or inconsistent with past practice" and expressed strong concerns about the negative impacts on the permits for fuel trade, storage facilities, and liquids and LNG terminals.[42] In July 2020, Sommers' concern became a reality when the U.S. Talos Energy and Pemex came into conflict over the operating rights in the Zama field of the Gulf of Mexico.[43] In October 2021, 43 members of the U.S. Congress sent a similar letter to President Trump.[44] Amid the worsened situation in January 2021, on the eve of the inauguration of the Biden administration, Secretary of State Mike Pompeo, Energy Secretary Dan Brouillette and Commerce Secretary Wilbur Ross wrote in a letter to Mexican officials that the Mexican energy policy threatened U.S. companies' investment.[45]

These letters clearly presented the U.S. intentions to negotiate with Mexico in accordance with the USMCA principle, committed to liberal practice. The virtual meeting between President Biden and President

40 Mexico is the hardest-hit country by COVID-19, with Pemex downgraded to junk by a rating agency in April 2020. President AMLO attributed Mexico's economic downturn to the liberalization by the previous regime, and COVID-19 accelerated such claim and the policies targeting its private sector. As of early 2021, Mexico's protections targeted renewable energy by limiting access to the grid. The possible spillover to the U.S. oil and gas industry become more of a reality as AMLO seeks to rescue Pemex.

41 American Petroleum Institute. https://www.api.org/~/media/Files/News/Letters-Comments/2020/API_Comments_Mexico_061120 (Accessed November 24, 2021).

42 To confirm Sommers' concerns, Iberdrola, a Spanish electricity company, halted building a combined-cycle power plant in Mexico. Although the effect of Mexico's protectionist policy is not clear, AMLO has long expressed concerns about Iberdrola's influence in the Mexican electricity market. The company's announcement to withdraw from Mexico would suggest that the government's discriminatory intentions were at work. See Mexico News Daily. "Spanish Energy Firm Iberdrola Threatens to Halt Further Investment in Mexico." https://mexiconewsdaily.com/news/iberdrola-threatens-to-halt-further-investment/ (Accessed November 24, 2021).

43 Reuters. "Mexico's Pemex, Talos Energy Told to Seek Deal on Shared Oil Find." https://www.reuters.com/article/us-mexico-oil-zama-idUSKBN249358 (Accessed November 24, 2021).

44 Congress of the United States. https://gonzalez.house.gov/sites/gonzalez.house.gov/files/10.22.2020%20Cornyn%20VGonzalez%20POTUS%20Mexico%20Market%20Issues%20Ltr%5B3%5D%202_0.pdf (Accessed November 24, 2021).

45 The Hill. "U.S. Officials Raise Concerns over Mexico's Handling of Energy Permits." https://thehill.com/policy/energy-environment/534506-us-officials-raise-trade-concern-over-mexicos-handling-of-energy (Accessed November 24, 2021).

AMLO in March 2021 demonstrated that such intentions were passed on to the new U.S. administration.[46] It is worth noting, however, that there is a divergence of perceptions between the Biden administration and the U.S. fossil fuel sector over to what extent the government should protect its oil and natural gas industry.[47] As one prominent example, Biden’s trade chief Katherine Tai argued for prioritizing the U.S. climate goals in protecting U.S. investment during the first USMCA Free Trade Commission in May 2021. With an eye to Biden’s climate agenda, the API argued that the recent Mexican protectionism was in favor of its fossil fuel sector and that addressing the U.S. fossil fuel sector’s complaints would “align with the White House priorities.”[48] The reconciliation between the Biden administration–focusing primarily on the Mexican Government’s regulation on renewable energy–and the U.S. fossil fuel sector–seeking protection against Mexico’s infringement of its interests–will be the key to U.S. energy policy towards Mexico.

（3）Accelerated Protectionist Policies by AMLO Administration

The Mexican side, in response to the U.S. claims, has continued its discriminatory energy policies by highlighting USMCA Chapter 8. Facing U.S. lawmakers’ complaints against the Mexican energy policies, President AMLO downplayed the criticism by saying the lawmakers were an “insignificant minority.”[49] Despite such bold statement, however, Mexico has been suffering from a decline n energy self-sufficiency due to domestic resource depletion, which led to the increasing oil and natural gas import from the U.S. (Fig. 7). U.S. natural gas especially matters for Mexico because it substitutes more expensive liquified natural gas (LNG).[50] Given Mexico’s increasing dependence on U.S. fossil fuels, it would not be desirable for the AMLO administration to undermine the relationship with the U.S., but the recent Mexican policies appear to neglect the reality of its energy market for protecting its own companies[51].

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46 The White House. “U.S.-Mexico Joint Declaration.” https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/01/u-s-mexico-joint-declaration/ (Accessed November 24, 2021).

47 Bloomberg. “Biden Trade Chief Voices Strong Concern for Mexico Energy Policy.” https://www.bloomberg.com/news/articles/2021-05-19/biden-trade-chief-voices-strong-concern-for-mexico-energy-policy (Accessed November 24, 2021).

48 Mexico’s restrictions on renewable energy led U.S. investors to increase their investment in Mexico’s oil and gas sector. See Argus. “US Raises Energy Industry Complaints with Mexico.” https://www.argusmedia.com/en/news/2215923-us-raises-energy-industry-complaints-with-mexico (Accessed November 24, 2021).

49 Argus. “AMLO Shrugs Off US Lawmakers’ Energy Complaints.” https://www.argusmedia.com/zh/news/2236986-amlo-shrugs-off-us-lawmakers-energy-complaints?amp=1 (Accessed November 24, 2021).

50 US Energy Information Administration. *U.S. Natural Gas Exports.*

51 EIA’s Low Oil and Gas Supply Case expects stagnant U.S. natural gas export to Mexico, and the export remains flat even in the High Oil and Gas Supply Case. Faced with uncertainty regarding U.S. natural gas supply in the future, Mexico may need to install more renewable generation and increase domestic oil and gas production to meet future demand. The market pressure, thus, could be a factor to change the protectionist policies. For the scenarios, see U.S. Energy Information Administration. “Annual Energy Outlook 2021.” https://www.eia.gov/outlooks/aeo/narrative/introduction.php (Accessed November 24, 2021).

As a significant step, President AMLO reiterated his intention to protect a nationally owned utility company, Comisión Federal de Electricidad (CFE), and to amend the Constitution in case the current legislation would not save the company. In October 2021, AMLO submitted a bill to Congress for amending the Constitution to strengthen government control over the electricity sector in Mexico. At that point, the bill was not likely to pass because the ruling coalition did not have enough seats in the Congress. If the government does not improve the status of nationally owned companies, however, President AMLO might seek to strengthen its protectionist orientation and try to win support from the opposition party.[52] The political development in Mexico is notable; for, the constitutional amendment, if achieved, will impose further restrictions on foreign companies investing in Mexico[53].

In the short run at least, the AMLO administration is likely to follow the path of energy protectionism in contrast to the USMCA's principles. In this regard, compared to the NAFTA era, the ISDS mechanism is expected to play a more important role for protecting U.S. companies from Mexico's discriminatory policies. When the level of Mexican protectionist policies reaches unacceptable, U.S. companies will seek to protect their own interests by accessing ISDS.[54] While the ISDS mechanism was primarily effective between the U.S. and Canada during the NAFTA era, the mechanism will become more influential in oil and natural gas trade between the U.S. and Mexico under the USMCA.

4. Conclusion

This study summarized the USMCA's energy provisions and provided possible outlooks for the two bilateral relations, U.S-Canada and U.S-Mexico, respectively. The USMCA's energy provisions present that both Canada and Mexico succeeded in reflecting their interests in the new agreement. It is worth noting, however, that the elimination of the proportionality clause creates an environment where the Canadian oil sands industry could face stagnant oil export volumes to the U.S. The protectionist provisions regarding Mexico, on the other hand, threaten the U.S. oil and natural gas sector which has been investing in Mexico

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[52] The ruling coalition had 57.8% of the Senate's seats and 55.5% of the House of Representatives' seats. The constitutional amendment requires a two-thirds of members present in both the Senate and House. See「日本貿易振興機構「AMLO 大統領、電力分野の国の影響力強化する憲法改正案を国会提出」、https://www.jetro.go.jp/biznews/2021/10/755d978f9785466e.html (Accessed November 24, 2021).

[53] Reuters. "UPDATE 1-Mexico Could Change Constitution to Strengthen Pemex President." https://jp.reuters.com/article/mexico-energy/update-1-mexico-could-change-constitution-to-strengthen-pemex-president-idINL2N2F01KA (Accessed November 24, 2021).

[54] To deal with the dispute with Pemex over the Zama field, Talos Energy has notified the Mexican government in writing that if the dispute cannot be resolved through negotiations, this conflict may develop into an ISDS process.

since the 2013 Constitutional Reform. The energy relationship between the U.S. and Mexico does not only unfold internationally but also develops as domestic political issues in the U.S. because the frictions have already become intense between the Biden administration and the fossil fuel industry. The ISDS mechanism, which remained only effective between the U.S. and Mexico, would presumably play a more important role in case the domestic coordination efforts failed. As the "double bilateralism" of North America indicates, the implications of the USMCA's provisions differ between U.S.-Canada–in which new provisions amend the institutional foundations of oil and natural gas trade–and U.S.-Mexico–in which the provisions endorse the concerned Mexican protectionist policies on its fuel sector. Given such differences, this last section looks at how the North American regional energy landscape could develop in the age of the USMCA.

The USMCA is likely to stall any U.S. moves for pushing oil and natural gas supplies from Canada and Mexico, as has been the case for more than two decades since NAFTA's launch. Since the shale revolution radically increased U.S. oil and natural gas production and decreased the importance of Canadian and Mexican fossil fuels for U.S. energy supply, the USMCA was not designed to encourage oil and natural gas imports from the U.S. neighbors, especially Canada. Furthermore, the elimination of the proportionality clause does not only mean that Canadian crude oil is less significant for the U.S. but also creates a tough business environment for Canada's oil exporters due to the U.S. decarbonization push. The AMLO administration, on the other hand, uses the USMCA provisions as justification for continuing discriminatory policies in the energy sector, which implies that U.S. companies may suffer adverse effects from their investments in Mexico. The USMCA provisions, although created in different contexts of the two bilateral relations, share a common implication that the U.S. may face difficulty in deepening cooperation in the oil and natural gas sector with Canada and Mexico.

The last comment touches upon the absence of climate change countermeasures, which have growing relevance to North American countries, in the USMCA. Due to the absence of climate change provisions, the role of the USMCA for climate change will presumably be limited to providing a platform for discussion, as was the case at the USMCA's ministerial-level meeting in May 2021.[55] The climate change

[55] The USMCA contains provisions on environmental protection in Chapter 24, which mentions the Montreal Protocol and the Washington Convention but makes no reference to international climate change agreements such as the United Nations Framework Convention on Climate Change and the Paris Agreement. See JURIST. "Dissecting and Unpacking the USMCA Environmental Provisions: Game-Changer for Green Governance." https://www.jurist.org/commentary/2020/06/malkawi-kazmi-usmca-environment/ (Accessed November 24, 2021).

initiatives in North America will likely develop outside the USMCA's framework such as the "Roadmap for a Renewed U.S.-Canada Partnership" which includes climate change measures.[56] One of the future challenges for Mexico–a country prioritizing its hydrocarbon sector–is to follow the U.S. and Canadian leads for decarbonization. Although the U.S. and Canada appear to be aligned in their efforts for decarbonization, both countries will face difficulties in promoting cooperation given the competition of domestic political parties as well as the frictions between the federal and state governments (Mildenberger & Stokes 2021). As the Keystone XL case indicates, the climate policies in one country easily cause conflicts in North America where the interdependence of oil and natural gas sectors has matured. Undeniably, domestic issues could turn into a regional conflict if the U.S. or Canada were to launch a series of climate change measures independently. The regional cooperation over climate change may, thus, prove challenging in the age of the USMCA. One needs to keep a close look on how the development of energy policies and the change in supply-demand structures inside the three member countries will affect the debate over the USMCA.

The USMCA aims to deepen economic cooperation among the three countries in the spirit of NAFTA. In energy field, however, the updated agreement does not offer a framework that enables the cooperation for two important practices: first, oil and natural gas business; and, second, climate change measures. U.S. legislators already expressed their complaints about the first point in a letter condemning Mexico. Similar concerns may be expressed against the U.S. and Canadian policies in the future. Regarding the second point, even though North America now produces as much oil as the Middle East, the USMCA does not encourage the regional cooperation to tackle climate change.[57] Considering the potential impacts on the global energy landscape, close attention, therefore, should be paid to whether the USMCA's provisions impede U.S. leadership as well as the regional cooperation or whether the U.S. will take the lead for cooperation over fossil fuel and decarbonization under the USMCA.

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[56] The White House. "Roadmap for a Renewed U.S.-Canada Partnership." https://www.whitehouse.gov/briefing-room/statements-releases/2021/02/23/roadmap-for-a-renewed-u-s-canada-partnership/ (Accessed November 24, 2021).

[57] As of 2019, OPEC's oil production was 29.3mb/d while the three countries produced 25.8mb/d. See OPEC. "A nnual Report 2019." https://www.opec.org/opec_web/static_files_project/media/downloads/publications/AR%202019%20for%20web.pdf (Accessed November 24, 2021).

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