Economic Diversification Beyond Mining

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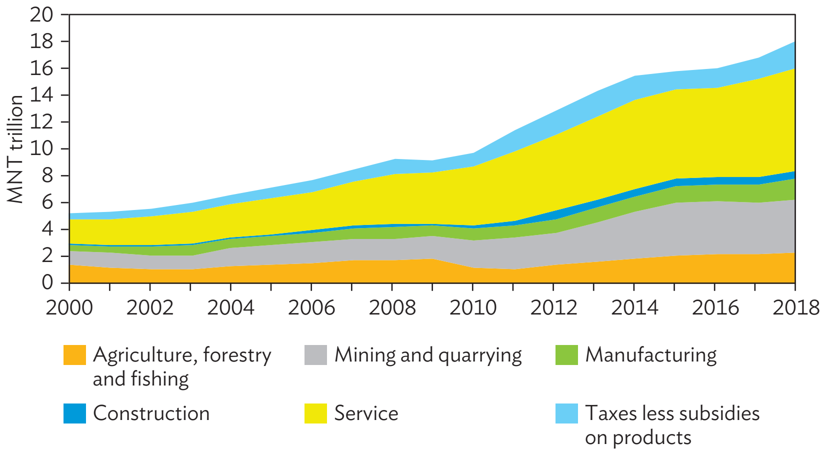
Mongolia has been one of the world's fastest growing economies since 2010. The rate of gross domestic product (GDP) growth hit its highest level in 2011 at 17%. The economy—which is highly dependent on mining and commodity prices—has found it increasingly difficult to sustain this momentum since then, with growth at 7.2% in 2018 and 5.1 in 2019. The most recent global economic slowdown as a consequence of the coronavirus disease (COVID-19) pandemic will result in a further slowdown and an expected growth rate of 2.1 in 2020 (ADB 2020). Mongolia's inherently volatile economy is a source of great uncertainty for businesses, investors, and policy makers. One way to overcome this is to diversify the economy to make it less susceptible to commodity price fluctuations and negative shocks in the mining sector. A more diversified economy also helps to provide more opportunities for people to find new jobs as some sectors might contract while others expand. In general a more diversified economy translates into more broad-based growth. Diversification is thus a means not an end.

Diversification can happen along two dimensions: domestically and internationally. Domestic diversification means that the economy produces an ever greater variety of goods and services. It is important to highlight the role of services, as many studies only consider the product space of an economy in terms of goods. In the majority of advanced economies, services account for over three-quarters of the economic activity.

International diversification describes the process of expanding the number of trading partners as well as goods and services exported. Domestic and international diversification are obviously interlinked and both help to make the economy more resilient against shocks.

Diversification is a process that takes time and major changes can be observed over decades, rather than years. The Mongolian economy has undergone significant structural change since 2000, transitioning from being dominated by agriculture to having a large mining industry and mining-related sectors. Figure 4.1 shows the growth and decline by sector since 2000, with rates of GDP growth more than trebling amid these changes.

Figure 4.1: Gross Domestic Product by Sector, 2000–2018 in Real 2010 Prices

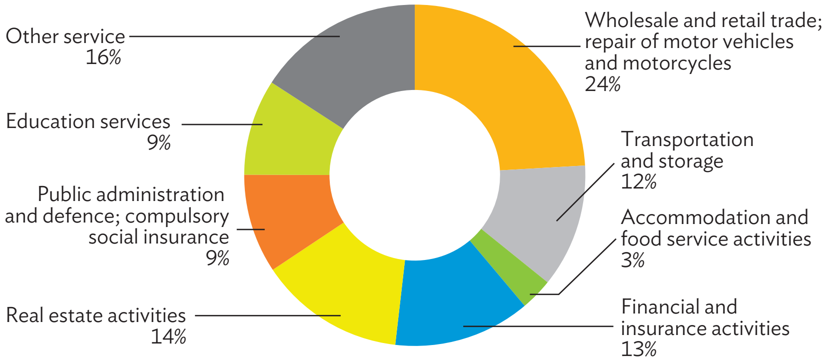


MNT = Mongolian togrog.
Source: National Statistics Office of Mongolia. Gross Domestic Product. http://1212.mn/tables.aspx?TBL_ID=DT_NSO_0500_001V1 (accessed August 2019).

Mining accounted for 20% of GDP in 2018, compared with 12% in the early 2000s. Agriculture and its related sectors are growing, but at a slower pace. In 2010 agriculture accounted for 20% of GDP, but this had declined to 11% in 2018. Services have become the largest sector, accounting for 40% of GDP. Resource-rich developing countries typically experience an expanding services sector, because it partly represents the nontradables sector and is reflective of the Dutch disease effect. Figure 4.2 shows that Mongolia's services predominantly comprise nontradable services.

Resource-rich countries find it difficult to diversify their economies because the real exchange rate tends to appreciate, making them prone to Dutch disease effects. Proceeds from mining raise the relative prices of goods and services in the home country so that domestic producers find supplying the local market more attractive than exporting. As the economy expands, led

Figure 4.2: Services Sector Composition, 2018



Source: National Statistics Office of Mongolia. Industrial Composition of Gross Domestic Product. http://1212.mn/tables.aspx?TBL_ID=DT_NSO_0500_002V1 (accessed August 2019).

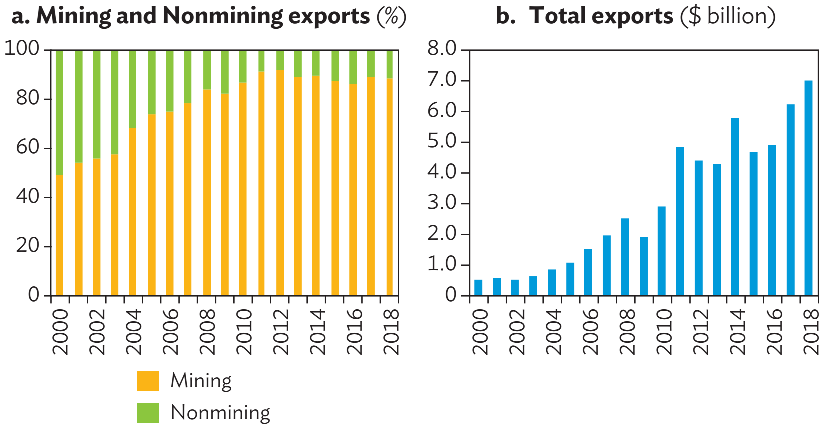
by mining, domestic demand for products and services rises, promoting the expansion of domestic nonmining sectors, which in turn boosts demand for imported goods and services, causing further structural change in the economy.

Mongolia's economy is showing signs of Dutch disease. But structural changes in the economy have not been caused only by mining. Because Mongolia's endowment of real production factors such as labor and capital are limited, the country has traditionally produced few nonmining products, making it more difficult to diversify away from mining. Indeed, Mongolia's nonmining exports show little diversification, with their share of total exports falling from about 45% in the early 2000s to 13.6% in 2018 (Figure 4.3, panel a).

One way of looking at how Mongolia's exports influence the economy and its structure is to look at their expansion over the long term (Figure 4.3, panel b). From 2002 to 2018, total exports grew by an average of 16% a year, a significant level of sustained growth. In this period, however, nonmining exports grew only by 6% per year.

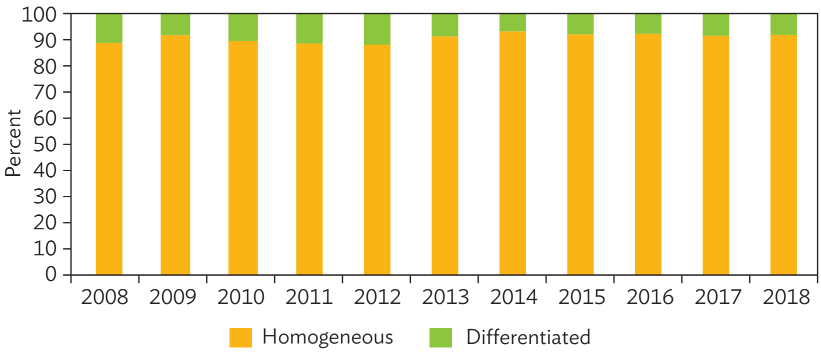
Mongolia's nonmining export products are also not well differentiated (Figure 4.4). Mongolia has made little progress since 2000 in exporting a wider mix of products. As of 2018, the value added of differentiated products made up only 7.0% of total exports. In comparison, the share of differentiated products was 21.7% in Latin American developing countries (excluding Mexico) and was 62.3% in developed countries (Martincus and Carballo 2012).

Figure 4.3: Composition of Exports, 2000–2018



Sources: National Statistics Office of Mongolia. Exports. http://1212.mn/tables.aspx?TBL_ID=DT_NSO_1400_005V1 and Mongolian Customs General Administration. Trade Statistics. http://www.customs.gov.mn/en/services/trade (both accessed August 2019).

Figure 4.4: Shares of "Homogeneous" and "Differentiated" Products in Nonmining Exports, 2008–2018

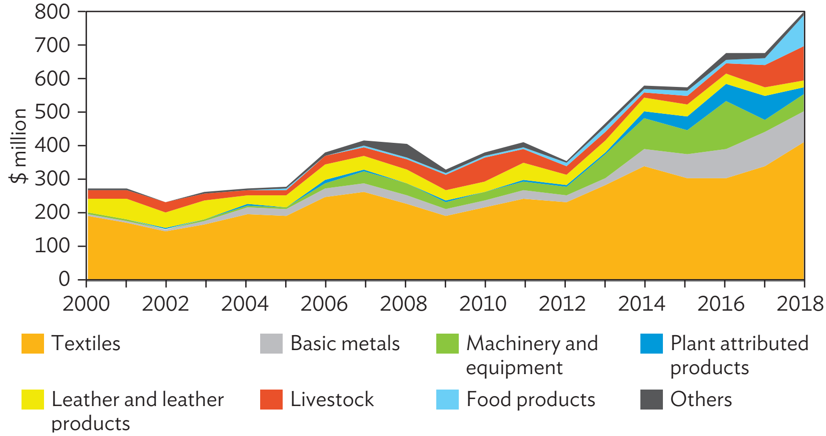


Sources: National Statistics Office of Mongolia. Exports. http://1212.mn/tables.aspx?TBL_ID=DT_NSO_1400_005V1 and Mongolian Customs General Administration. Trade Statistics. http://www.customs.gov.mn/en/services/trade (both accessed August 2019).

The composition of Mongolia's exports has not changed much over the years: about 50% of nonmining exports continue to be textiles, mainly wool, cashmere, and woven fabrics (Figure 4.5).

Since 2017, livestock has become an increasingly important export product, due to Mongolia exporting meat to the People's Republic of China (PRC).

Figure 4.5: Nonmining Exports, 2000–2018



Sources: National Statistics Office of Mongolia. Exports. http://1212.mn/tables.aspx?TBL_ID=DT_NSO_1400_005V1 and Mongolian Customs General Administration. Trade Statistics. http://www.customs.gov.mn/en/services/trade (both accessed August 2019).

These exports rose almost ninefold from 2015 to 2017, when they totalled $38 million and accounted for 70% of total meat exports.

Exports of machinery and equipment and of basic metals are highly dependent on mining. When mining contracts, exports of machinery and equipment increase as companies move out of the country. When mining expands, exports of machinery and equipment decrease.

4.1 Diversifying the Economy and Expanding Exports

The government has long recognized the need to diversify the economy, and this has been at the forefront of economic policy making for many years. Numerous government programs aimed at creating a multipillar economy have been approved. In 2008, the Parliament adopted the Comprehensive National Development Policy, which was based on the Millennium Development Goals. The policy acknowledged that, because the economy was highly dependent on mining, the country should take full advantage of the sector's development in the short term. In the medium-to-long term, however, the policy envisioned a diversified, private-sector-led economy using advanced technology with a highly developed manufacturing sector and low dependence on mining. The policy envisaged this being achieved through industrial, infrastructure, and regional development. The policy set timelines for achieving these goals, but it lacked financing arrangements and policy enforcement mechanisms.

In 2018, the Parliament adopted the Mongolia Sustainable Development Vision 2030 in which the goal of sustainable economic development would be attained through diversification. The policy identified the energy and infrastructure sectors for development at the outset and prioritized agriculture; light industry; food; construction materials; copper refining; coal, petrochemical, and iron production; tourism; and mining. For the policy to be successful, however, it needs the support of not only the central government but also of lower-level government. It also needs to be implemented through step-by-step sector-specific programs. Tuvshintugs and Delgermaa (2018) and other studies note a lack of sector-specific programs, which will make it difficult for the government to realize the policy's objectives by 2030. The policy also has to be consistent with the Government Action Plan, 2016–2020.

These missing elements are to some extent addressed in the government's 2018 Three Pillar Development Policy Program, which is consistent with both the Sustainable Development Goals and the Government Action Plan. Under the program, there are three pillars of development: economic diversification, promotion of accountable and disciplined governance, and human-centric social policy. The program sets out specific goals to achieve diversification by promoting three broadly defined sectors: food, agriculture, and light industry; mining and heavy industry; and trade, tourism, and infrastructure. The government acknowledges the need for diversification for sustainable development and prioritizes certain sectors to achieve this goal. For example, the Public Investment Program, 2018–2020, which is based on the Three Pillar Development Policy Program, demonstrates the government's intention to pursue comprehensive and implementable diversification policies. But because of a lack of financing, the government is finding it difficult to implement these policies.

To achieve its diversification objectives, the government is supporting small and medium-sized enterprises (SMEs) and promoting exports. During 2011–2015, this effort concentrated on financial support to businesses by providing subsidies to certain sectors, including cashmere and meat. But that financial support was stopped in 2016 because of a lack of funding.

In addition to the government, several multilateral organizations finance trade-related projects to support Mongolia. These include the Asian Development Bank's Agriculture and Rural Development Project, which is aimed at improving the standards of agriculture products with export potential, and the World Bank's Export Development Project to support small businesses by strengthening their export capabilities. Bilateral organizations, including the German development agency GIZ,[1] the Japan International Cooperation Agency, and USAID[2] also support SME development in Mongolia. GIZ has financed training programs, provided technical assistance, and helped businesses in certain sectors, including the meat sector, to participate in trade fairs. The Japan International Cooperation Agency has a loan project to support SMEs through Mongolian commercial banks. USAID funded the Economic Policy Reform and Competitiveness Project that promotes competition in and the growth of Mongolia's cashmere, tourism, meat, and leather industries (ERI 2018).

Overall, multilateral and bilateral organizations have provided SMEs in Mongolia with access to crucial financial and technical assistance. But a drawback of these interventions has been that most projects are focused on specific sectors with a narrow reach and are ad hoc in nature, thereby limiting their overall effectiveness.

Causes of the lack of diversification

Many factors explain why economies lack diversification. As just discussed, resource-rich countries inherently struggle to diversify their economies. Botswana is an example of a country that struggles to diversify its economy despite its good institutional quality (Kegomoditswe and Adachi 2015). Unlike Botswana, Mongolia's institutional quality is weak, making economic diversification even more difficult. Many business surveys show that Mongolia's institutional quality is low and its business climate poor. The World Bank's 2019 Doing Business project ranks Mongolia 74th of 194 countries for ease of doing business, down from 62nd in 2018. Mongolia's Doing Business score improved slightly for enforcement of contracts, which was made easier by a reduction in fees advanced by plaintiffs. Mongolia ranked 126th of 183 countries in the Heritage Foundation's Economic Freedom Index. Both surveys show that Mongolia's rule of law and regulatory efficiency are not improving and continue to lag behind many countries.

Corruption is a major factor in Mongolia's low institutional quality and poor business climate. Mongolia ranked 93rd out of 180 countries in Transparency International's 2018 Corruption Perception Index, a small improvement from

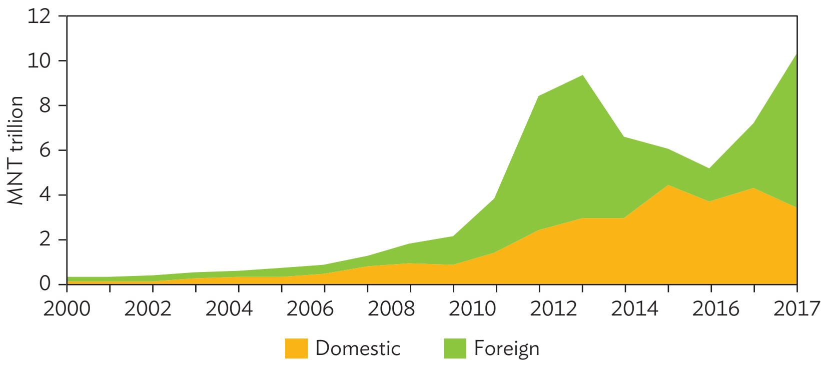
[1] GIZ = Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH

[2] USAID = United States Agency for International Development.

2017. Despite recent government efforts to combat corruption, it is still a deep-rooted and widespread problem. In 2017, a new criminal code came into force that imposed stricter penalties for corruption and corruption-related offenses for government officials and their immediate families. The law has not been effectively implemented, however, and corruption remains pervasive.

Mongolia's weak institutions and poor business climate impede investment. The Frazier Institute ranks Mongolia 81st of 104 countries in terms of investment attractiveness. Figure 4.6 shows domestic and foreign investment from 2000 to 2017.

Figure 4.6: Investment, 2000–2017



MNT = Mongolian togrog.
Source: National Statistics Office of Mongolia. Investment. http://1212.mn/tables.aspx?TBL_ID=DT_NSO_0901_001V1 (accessed August 2019).

Foreign direct investment has been volatile, experiencing a drastic drop during 2012–2015 and a rebound in 2016–2017. Although many factors led to this dramatic volatility (such as a significant decrease in the country's terms of trade), even with much improved terms of trade the country's investment is not much higher than the 2012 levels. Moreover, about 75% of foreign direct investment goes into mining (ERI 2017).

Poor infrastructure is another major factor for Mongolia's lack of diversification, and expensive transport is one of the largest impediments businesses face. Mongolia has a comparative advantage in many products, especially in agriculture, but these are underdeveloped and not being exported. The World Bank (2019a) attributes this to a diluted comparative advantage due to Mongolia's weak transport network with the PRC and the Russian Federation. In particular, the World Bank identifies high delivery costs, logistics inefficiencies, the gap between domestic and international product standards, poor infrastructure, and Mongolia's weak trade facilitation regime as the main reasons for the country's lackluster performance in producing and exporting goods internationally.

This finding is backed by Mongolia's scores on the World Bank's Logistics Performance Index, where it ranked 129th of 167 countries based on its weighted aggregated scores in 2012, 2014, 2016, and 2018.[3] In the index's six categories (where 2.00 = low and 5.00 = high), Mongolia scored best on timeliness (3.07) and worst on infrastructure quality (2.12). The index's infrastructure category includes the quality of types of transport; of ports, airports, warehousing, and transloading; and of information and communication technology. Mongolia's low score reflects its unreliable road and rail system, and bottlenecks at border ports (World Bank 2019a).

The level of Mongolia's export diversification and its production of nonmining products depend largely on inputs to supply chains. Because of poor infrastructure and the seasonality of many inputs, establishing a reliable supply chain is a challenge that all producers must overcome. This is especially true for agriculture, which is considered to be the most promising sector to promote economic and export diversification (World Bank 2019c). The literature is extensive on the analysis of supply chains associated with promising products, including cashmere, meat, and vegetables and other food products.

Mongolia's cashmere industry and its supply chain has been growing steadily along with global demand for cashmere (Mongolia International Capital Corporation 2017). Large exporting companies (such as Gobi Corporation LLC., the country's largest cashmere company) have vertically integrated their supply chains, investing heavily in the normally unpredictable process of raw cashmere procurement. This has reduced the susceptibility of such companies to shocks in the cashmere supply chain. Most smaller cashmere producers, however, buy their raw inputs directly from herders. Because of weak connections with these herders, the smaller producers experience difficulties with assuring that their raw inputs are of good quality. In contrast, large cashmere companies in the PRC have strong connections with local herders, making it even harder for Mongolian companies to cultivate new suppliers. Environmental changes and the rapid growth of Mongolia's goat population pose further difficulties for sustaining the quality of cashmere, forcing producers to go to great lengths to ensure specific quality standards in their raw inputs.

[3] The index ranks a country's logistics performance on the basis of the efficiency of its customs, quality of infrastructure, ease of arranging shipments, logistics competence, tracking and tracing, and timeliness of shipments.

Studies on the agriculture sector show a diverse set of difficulties. Vegetable cultivation is increasing in Mongolia, but lacks modern technology and uses inferior storage methods that make production at scale difficult. Coordination between growers is lacking, thereby increasing their dependence on intermediaries, which raises domestic vegetable prices (ERI 2019). A shortage of advanced storage facilities and methods makes the consistent production of products that use vegetables as raw inputs difficult. Some companies need large supplies of vegetables for their products but must rely on intermediaries because no single farmer can supply the amounts needed.

In the livestock subsector, producers cite the lack of a specialized workforce, insufficient investment in the industry, and outdated equipment and production technologies as impediments to increasing meat production. Milk and dairy producers have to grapple with the seasonality of raw materials. Most producers of animal hides are small-scale herders who do not have set production volumes. They typically increase production periodically in the late summer and early winter to make extra money for household expenses and to decrease the amount of fodder needed for over-wintering (SECiM 2018). Moreover, exporters encounter customs and market entry problems. For the livestock subsector, the biggest problems are the prevalence of disease and lack of quality assurance. While efforts have been made to promote the issuance of certificates of origin, most herders cannot guarantee the source and quality of their products, making food safety a concern.

One way to overcome issues of quality in the livestock subsector is to use veterinary services and quality assurance systems. These include services such as laboratory testing and issuance of certificates of origin, which have the characteristics of a public good. Such services should be supplied by the government or by nongovernment public entities—chambers of commerce and industry associations, for example—to overcome the coordination failure among Mongolia's small businesses and dispersed suppliers of agricultural raw materials. However, these institutions are either not yet in place or not functioning well.

Labor productivity and structural transformation

The success of a country's structural transformation toward economic diversification can be determined from a breakdown of the contribution of sectors to GDP, employment structure, and labor productivity. This section evaluates Mongolia's sectoral contribution to GDP and employment from 2000 to 2017. A longer timeline was not possible because of data limitations and Mongolia's transition from a planned economy during the Soviet era to a free market economy in the early 1990s. Moreover, macroeconomic indicators from this period are volatile and not representative of Mongolia's current economic circumstances. Three Asian countries with characteristics pertinent to Mongolia were chosen as benchmarks for comparing the breakdown of output and employment (Table 4.1): the PRC (successful transformation), Kazakhstan (landlocked, large mineral exporter, post-Communist), and the Republic of Korea (successful transformation).

The experience of numerous successful economies in Asia suggests that a key feature of structural transformation is a shift from the primary sectors, such as agriculture, to industry. This shift is evident in countries that have made the transformation, such as the PRC and the Republic of Korea. The data for Mongolia in Table 4.1 suggest a successful structural shift from agriculture to industry (including mining). However, the shift was predominantly due to increased mining output, with mining's share of GDP almost doubling from 2000 to 2017. As mining is a primary sector that is mainly concerned with raw materials, Mongolia's seemingly positive industrial growth should not be considered as a structural transformation in its true sense.

As an economy undergoes structural transformation, its labor structure changes from primarily agriculture-oriented into one in which services employs a large share of the workforce, as has happened in Kazakhstan. Mongolia's share of the workforce in agriculture has fallen sharply, from 48.6% in 2000 to 28.8% in 2017. The decline has been offset by an increase in employment in services. Interestingly, because of the capital-intensive nature of mining, it accounted for only 4.2% of total employment in 2017, despite its growing output as a share of GDP.

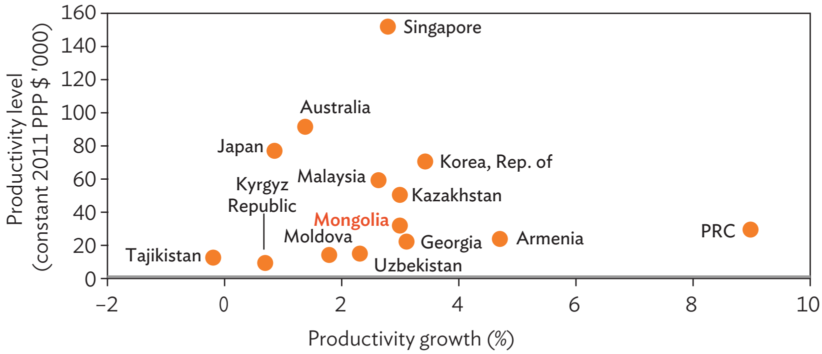
Labor productivity is another key indicator of structural transformation in which increased labor productivity is associated with a successful transformation. The PRC, the Republic of Korea, and Malaysia are among the many Asian countries that have successfully transformed their economies from predominantly low-productivity sectors to high-productivity ones. Mongolia's labor productivity growth averaged only 3% a year between 1991 and 2018, indicating its lack of transformation and hence lack of diversification (Figure 4.7). However, while this growth is slow compared with that of some other regional countries, notably the PRC, it is nevertheless in line with that of other post-Communist countries, including Kazakhstan and Tajikistan.

Table 4.1 Output and Employment Structure, 2000-2017

Sector	Mongolia			PRC			Korea, Rep. of			Kazakhstan		
	2000	2010	2017	2000	2010	2017	2000	2010	2017	2000	2010	2017
Output structure (% of GDP)												
Agriculture	30.5	12.9	11.8	14.9	9.8	8.2	4.4	2.5	2.2	8.6	4.6	4.7
Mining	12.0	23.8	23.9	...	...	...	0.3	0.2	0.2	13.8	20.1	14.1
Industry (without mining)	12.7	12.8	15.7	45.7	46.6	40.6	37.8	38.1	39.4	26.1	21.8	19.8
Services	43.6	49.4	47.7	39.4	43.6	51.2	57.5	59.3	58.3	51.1	53.2	61.0
Employment structure (% of total employment)												
Agriculture	48.6	33.5	28.8	50.0	36.7	27.7[a]	10.7	6.6	4.8	31.4	28.3	15.4
Mining	2.3	3.3	4.2	...	...	...	0.1	0.1	0.1	3.3	2.4	3.3
Industry (without mining)	11.8	12.9	15.0	22.5	28.7	28.8[a]	20.3	24.9	25.2	14.9	16.3	16.5
Services	37.2	50.2	52.0	27.5	34.6	43.5*	68.9	68.4	69.9	50.5	53	64.8

... = not available, GDP = gross domestic product.
[a] 2016 data (2017 data were not available).
Sources: Asian Development Bank (2017b, 2018c).

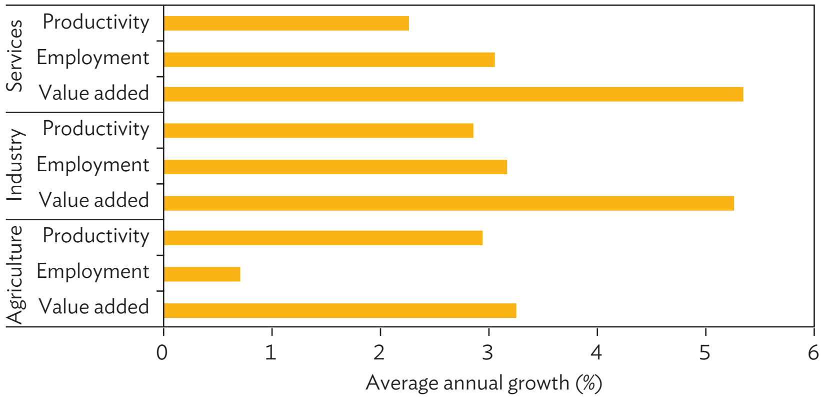
Figure 4.7: Average Labor Productivity in Selected Economies, 1991–2018



PPP = purchasing power parity, PRC = People's Republic of China.
Source: World Bank. World Development Indicators Database. https://databank.worldbank.org/source/world-development-indicators (accessed August 2019).

Differences in Mongolia's labor productivity across sectors are not significant, with labor productivity in agriculture, industry, and services increasing annually by 2%–3% on average between 1991 and 2017 (Figure 4.8). Employment growth was similar for industry and services, at about 3% annually during this period, while that of agriculture was low, at 0.6%.

Figure 4.8: Average Annual Growth in Value-Added, Employment, and Labor Productivity, 1991–2017
(constant 2010 $)



Source: World Bank. World Development Indicators Database. https://databank.worldbank.org/source/world-development-indicators (accessed August 2019).

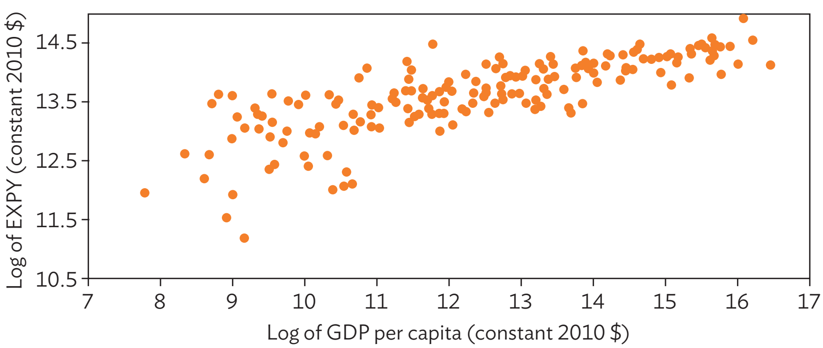
Thus, compared with similar and exemplar countries, Mongolia made a quick transition from an agriculture-based economy to an industrial one; however, much of the transition was due to increased mining output. Mongolia's labor productivity, though still in the range of former Soviet Union countries, lags behind that of developed countries. While Mongolia has achieved significant structural changes, it has yet to successfully transition into a diversified economy. This highlights the need for further modernization and export diversification.

Export sophistication and growth

A country's export basket can reflect its ability to produce high-value-added products and the level of its structural transformation. The experiences of some countries suggest that producing and exporting more diversified and high-value-added products is a key element of a successful transformation. By analyzing export data, it is possible to determine a country's current economic situation and its potential for economic growth and structural transformation.

Studies show that export or production structures that favor relatively sophisticated exports are one of the main economic characteristics that predict sustained growth (Berg et al. 2012). Hausmann, Hwang, and Rodrik (2007) find a positive relationship between a country's export sophistication and its GDP per capita, suggesting that a country's economic well-being depends on the type of products it exports (Figure 4.9).

Figure 4.9: Export Sophistication and Gross Domestic Product per Capita, 2016



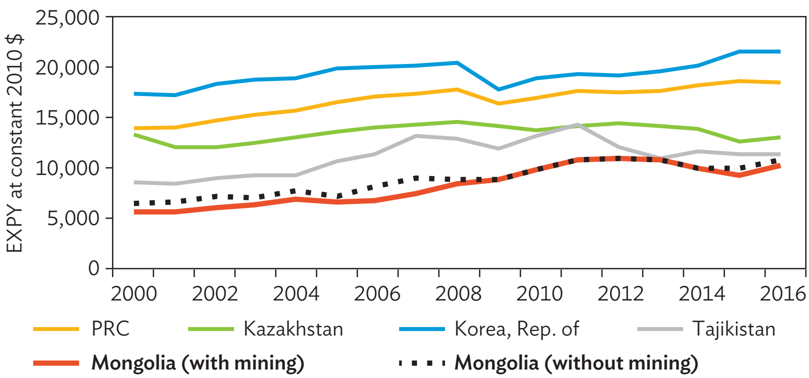
EXPY = export sophistication index, GDP = gross domestic product.
Sources: Estimates based on data from World Bank. World Development Indicators Database. https://databank.worldbank.org/source/world-development-indicators and Growth Lab at Harvard University, Atlas of Economic Complexity. https://atlas.cid.harvard.edu/ (both accessed August 2019).

To measure the sophistication of a country's export basket, the PRODY index of each product can be used. The PRODY index shows the world income level associated with a product. The index is the weighted average of GDP per capita of all countries that export that product. The weights used in the calculation are Balassa's index of revealed comparative advantage in that product (Balassa 1965). This calculation assumes that richer countries export more high-value-added products, meaning that the income level or productivity associated with a product (PRODY index) will be higher if it is exported by countries with a high GDP per capita.[4]

Using the PRODY index, a country's export sophistication index (EXPY), proposed by Hausmann et al. (2007), can be calculated. This is done by finding the PRODY index's average for all products in a country's export basket, weighted by the export share of these products. If a country exports products that have a high PRODY index with comparative advantage, its EXPY index will also be higher.

Figure 4.10 shows Mongolia's exports are less sophisticated than those of the PRC and the Republic of Korea, two successful economies, and those of resource-rich Kazakhstan. This suggests that Mongolia exports comparatively lower value-added products, which highlights the need for structural transformation to diversify the economy. As the figure shows, Mongolia's

Figure 4.10: Export Sophistication of Selected Economies, 2000–2016



EXPY = export sophistication index, PRC = People's Republic of China.
Sources: Estimates based on data from World Bank. World Development Indicators https://databank.worldbank.org/source/world-development-indicators and Growth Lab at Harvard University, Atlas of Economic Complexity. https://atlas.cid.harvard.edu/ (both accessed August 2019).

[4] PRODY is a product technological sophistication index.

export sophistication stagnated from 2000 to 2006 but increased significantly from 2006 to 2012, mainly because the share of mineral products in exports increased. In 2010, for example, the share rose by 15 percentage points year-on-year. Compared with 2009, coal exports tripled in 2010, when major mining projects started and global mineral prices were favorable.

Another way to look at export sophistication is to use the PRODY index of all 1,242 exported products in the world. These can be divided into five categories: the top 20% are classified as very-high-income products; subsequent 20% increments are classified as high, average, low, and very-low income. As Table 4.2 shows, the PRODY index classification of Mongolia's main exports are in below-average income classifications. This is because the country's exports are heavily concentrated in a few mineral products.

The table also shows the need for Mongolia to diversify its export basket. From 1995 to 2005, about 85% of exports were in the very-low-income classification, which consists of products with the lowest income levels. This shifted in 2010, with the low-income category rapidly growing from 12% of total exports in 2005 to 49% in 2010 as coal exports, classified in the low-income category, expanded dramatically. More sophisticated products, including machinery, mechanical appliances, and electrical equipment, which are classified as high income, have started appearing in Mongolia's export basket in recent years (Figure 4.11). The share of products in the high-income classification grew by 2.5 percentage points from 2010 to 2016.

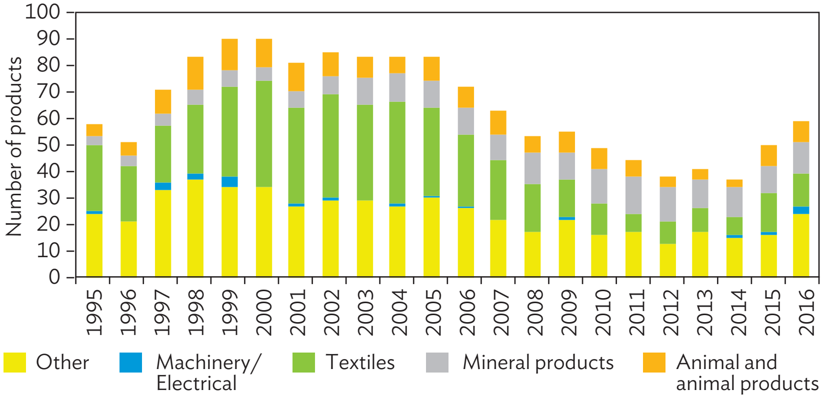
Table 4.2: Export Share by PRODY Classification
(%)

PRODY Classification	1995	2000	2005	2010	2016
Very high (top 20%)	0.14	0.25	0.24	0.07	0.68
High	2.41	2.03	1.72	0.63	3.13
Average	0.63	3.60	0.91	0.20	0.51
Low	11.72	8.82	12.26	49.15	34.35
Very low (lowest 20%)	85.10	85.30	84.86	49.95	61.32
Total	**100**	**100**	**100**	**100**	**100**

Sources: Estimates based on data from World Bank. World Development Indicators. https://databank.worldbank.org/source/world-development-indicators and Growth Lab at Harvard University, Atlas of Economic Complexity. https://atlas.cid.harvard.edu/ (both accessed August 2019).

These high-income products have led to the increase of Mongolia's EXPY index since 2010. Even so, the quantity of these products that Mongolia exports is low. The high concentration of and reliance on mineral products in the low-income PRODY classification indicate a lack of diversity of products

Figure 4.11: Products with a Comparative Advantage by Sector, 1995–2016



Note: Out of a total 1,242 products.
Sources: Estimates based on data from World Bank. World Development Indicators. https://databank.worldbank.org/source/world-development-indicators and Growth Lab at Harvard University. Atlas of Economic Complexity. https://atlas.cid.harvard.edu/ (both accessed August 2019).

made in Mongolia. In fact, the number of nonmineral products where Mongolia has a comparative advantage has fallen since 2005, when mineral product exports surged.

The share of agricultural products, including animal hair (HS code 5102),[5] wool (5101), and horsemeat (0205), in total exports has steadily decreased since about 2000, whereas the share of mineral products, including iron ore (2601) and zinc ore (2608), have increased dramatically (Table 4.3).

Table 4.3 shows that copper ore (2603)[6] averaged 36% of total exports between 1995 and 2016. Because of rising coal prices and the start of major mining projects by Energy Resources and Erdenes Tavan Tolgoi, coal (2701) became a major export product in 2010.[7] With the start of Oyu Tolgoi's open-pit mining operations in 2009, copper ore again became Mongolia's main export product.[8]

[5] HS = Harmonized Commodity Description and Coding System.

[6] Product code of the harmonized classification system with four digits (1,242 products); this classification is used in all estimations.

[7] Tavan Tolgoi is a large coking and thermal coal deposit in Umnugobi Province. Energy Resources LLC. operates the Ukhaa Khudag deposit of Tavan Tolgoi, and began mining in 2009. Erdenes Tavan Tolgoi operates in the East Tsankhi section of Tavan Tolgoi. As of 2016, the Tavan Tolgoi deposit was calculated to have a reserve of 6 billion tons of high-grade coal.

[8] Oyu Tolgoi is a large copper and gold mining project in Umnugobi Province. It is a joint venture between the government and Turquoise Hill Resources. Mining began in 2012.

Table 4.3: Top 20 Exports as a Share of Total Exports

HS Code	Commodity	PRODY	Export Share (%)				
			1995	2000	2005	2010	2016
2603	Copper ore	4,534	37.45	33.71	38.29	29.91	35.75
2701	Coal	15,213	...	...	3.83	34.33	21.53
7108	Gold	7,838	13.21	7.21	14.74	5.71	11.17
2709	Petroleum oils, crude	13,836	0.94	0.41	0.92	5.43	6.45
2601	Iron ores and concentrates	10,048	...	...	0.81	7.43	4.87
5102	Animal hair	1,661	9.28	9.16	4.30	2.84	3.84
7403	Refined copper and copper alloys	5,518	...	0.15	0.14	1.16	2.29
2608	Zinc ore	6,359	...	...	0.98	2.70	2.18
802	Other nuts	4,289	...	0.03	0.05	0.03	1.42
2529	Feldspar	8,471	...	4.17	3.59	2.65	1.36
2613	Molybdenum ore	6,330	5.55	1.25	5.52	2.23	0.75
8708	Parts of motor vehicles	21,577	...	0.01	0.08	0.01	0.64
8431	Parts for use with hoists and excavation machinery	20,578	...	0.14	0.07	0.00	0.52
2616	Precious metal ores	4,549	...	...	...	0.00	0.45
5101	Wool	23,556	2.18	0.69	0.68	0.25	0.43
2607	Lead ore	7,748	...	...	...	0.35	0.40
205	Horsemeat	11,689	...	...	0.55	0.70	0.35
1205	Rape (colza) seed	22,606	...	...	0.01	0.01	0.34
2611	Tungsten ore	4,387	0.10	0.04	0.04	0.10	0.27
6110	Sweaters, pullovers, sweatshirts etc., knit	6,864	2.24	7.34	4.89	0.62	0.26
	Total		**71.0**	**64.3**	**79.5**	**96.5**	**95.3**

... = the commodity was not exported.
Sources: Estimates based on data from World Bank. World Development Indicators. https://databank.worldbank.org/source/world-development-indicators and Growth Lab at Harvard University, Atlas of Economic Complexity. https://atlas.cid.harvard.edu/ (both accessed August 2019).

4.2 Export Bottlenecks: Company Perspectives

Section 4.2 considers the experience of several companies in different sectors interviewed for this study that are trying to break into export markets or already have a presence in international markets. It looks at their market penetration strategies and how they deal with international standards and regulations, cost and risk sharing, transport and logistics bottlenecks, supply chain and labor market issues, coordination failures, public goods, and the role of government.

To identify companies that export their products, sectors in which Mongolia has a comparative advantage are first identified (Table 4.4). Using Béla Balassa's revealed comparative advantage index (Balassa 1965), Table 4.4

shows Mongolia's most important nonmining exports. A number above 1 suggests an advantage compared with the global average.

Table 4.4: Revealed Comparative Advantage by Priority Export Sector

Product	2009	2010	2011	2012	2013	2014	2015	2016	2017
Textiles	2.25	1.77	1.20	1.32	1.57	1.33	1.38	1.29	0.92
Leather and leather products	2.73	1.89	1.76	1.13	1.24	0.93	1.03	0.91	0.34
Basic metals	0.13	0.10	0.07	0.07	0.08	0.12	0.23	0.28	0.28
Machinery and equipment	0.04	0.02	0.01	0.02	0.05	0.05	0.04	0.08	0.01
Plant-attributed products	0.11	0.01	0.04	0.04	0.08	0.15	0.29	0.39	0.81
Livestock	1.24	1.33	0.46	0.31	0.30	0.14	0.29	0.29	0.55
Food products	0.09	0.07	0.06	0.07	0.11	0.06	0.10	0.07	0.06
Rubber and plastic products	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.03	0.02

Source: Authors' estimates.

Eight companies (mostly small but also some large ones) in emerging sectors that produce higher-value-added products were chosen to examine the challenges such companies faced and how they have dealt with them. Traditional subsectors, such as textiles (cashmere), were not included because they are already well studied. Another traditional subsector, agricultural raw materials, such as animal skins, were also not included because they are not processed. The selected companies were in auto parts, pharmaceuticals, beverages, food and dairy, cosmetics, information technology, and financial services.

Senior managers of the companies were interviewed. Exports constituted a fairly small portion (5%–20%) of their output, except for the auto parts maker, which sold its total production to Japan. All of the companies drew attention to the limited capacity of the domestic market. Because of Mongolia's small population and low purchasing power, they saw export markets as a means to increase production and earn much-needed foreign exchange to import inputs for their products.

This pattern, however, is common to many SMEs globally. Muller et al. (2018), in their study on SME internationalization in the European Union, find that among the 28 member states, micro and small enterprises tend to be concentrated in industries with low export intensities, while the distribution of medium-sized enterprises across industries of different export intensities tends to broadly mirror that of large enterprises, which have a greater level of internationalization. Mongolia's nonmining producers and exporters have a much lower level of internationalization than those in most other countries.

All the companies interviewed make high-quality products, and recognize that producing "exclusive" products is a requisite for being able to export successfully. For example, the cosmetics company uses natural, locally sourced animal and botanical ingredients. It produces in small batches on an order basis to ensure good quality and freshness. The pharmaceutical company makes herbal medicines and supplements, and has a large research and development unit. A selling point is its use of local ingredients, including rare medicinal herbs. Similarly, the sea buckthorn company uses locally harvested wild and cultured berries to produce essential oil and juice concentrate. The high-quality of sea buckthorn berries is due to Mongolia's climate.

The beverage company is a market leader in its sector and has modern facilities. Its products are diverse and adhere to international standards. The food and dairy producer, also a big company with large industrial facilities, is known for its dried milk product. It draws on local milk and grain sources to produce its high-quality products.

The financial services company developed a software product that takes advantage of a niche market by providing services to meet local needs and regulations in Mongolia. It has also expanded into three countries in Central Asia.

The information technology company is trying to export, but is hampered by a lack of local technological expertise and specialized products. It has, however, had some success with import substitution, where it is able to offer services and software at a lower cost.

The auto parts manufacturing company produces about 50 types of small specialized steel and aluminum parts. All its products are exported to its parent company in Japan and must meet the strict quality standards of car makers in Japan as well as other parts of the world.

A challenge common to these companies is that they are not producing mass products that can be sold in the international market. The way forward therefore seems to be to produce high-quality niche-market products, and (best of all) "exclusive" products—even for standard but differentiated products, such as liquor. Yet, even here their products need to be of the highest quality, because a low-cost product will not be able to compete in international markets. The same logic applies to tourism (Box 4.1), where Mongolia should offer specific tourism routes and unique experiences instead of the mass tourism offered elsewhere. Overall, the problem does not seem to be a lack of good quality Mongolian products; the need is to get the products into the international market.

Box 4.1: Developing Tourism in Mongolia

Tourism is an emerging sector that can boost Mongolia's economic diversification efforts. Tourism accounted for MNT804.8 billion ($330.5 million), equivalent to 3.1% of gross domestic product (GDP) in 2017 (WTTC 2018). This is expected to rise 4.5% a year to MNT1.3 trillion ($527.6 million) by 2028.[a]

The direct contribution of tourism—through accommodation, transport, and entertainment, for example—has accounted for only a fraction of the sector's net effect on the economy. The total contribution, including indirect and induced contributions, has provided a more comprehensive picture. In terms of total contribution, tourism accounted for 11.8% of GDP and 11% of total employment in 2018 (WTTC 2019).

Visitor exports, defined as spending for business and leisure in Mongolia by international tourists, made up the bulk of the sector's direct contribution to GDP in 2017, generating MNT1.1 trillion ($459.3 million). By 2028, visitor exports are forecast to generate MNT1.7 trillion ($694.8 million) (WTTC 2018). Moreover, tourism attracted MNT1.7 trillion ($694,800,000), or 26.4% of total investment, in 2017 (WTTC 2018). This is expected to rise by an average of 4.6% a year to reach MNT2.6 trillion ($1.07 billion) by 2028.

Mongolia has been pursuing policies to develop tourism as a priority sector. The National Tourism Development Program, approved in 2015, is focused on improving the international competitiveness of the sector as a whole. It consists of two phases until 2025 and includes provisions to improve infrastructure, develop tourism products and services based on local communities and protected areas, create a tourist information system, and strengthen the sector's workforce.

Several general national policy documents also include provisions to develop tourism. The Government Action Plan, 2016–2020 aimed to expand the number of tourists that visit Mongolia, and it includes provisions to establish historical and specialized tourism centers in seven distinct areas of the country. Increasing tourism is contained in the Sustainable Development Goals, which calls for the development of tourism as an international destination for nomadic culture, with a goal of attracting 2 million tourists a year.

Continued next page

Box 4.1 continued

Rather than focusing on expanding tourism and increasing the number of tourists, it would be more beneficial to develop Mongolia as a niche tourist destination (Economic Research Institute 2019). Mongolia's advantages lie in its rich nomadic history coupled with its abundance of wildlife, which attracts tourists interested in culture, archaeology, paleontology, animal and bird watching, and nature tourism.

Because of Mongolia's remote location, extreme weather, and weak infrastructure, government policies could focus most effectively on specific action plans to further develop Mongolia's unique advantages rather than broad policies to increase overall competitiveness.

[a] Mongolia's tourism sector is likely to start experiencing the effects of the COVID-19 pandemic in the summer of 2020 given that winter and spring are not tourism season. Projections of the impact are not yet available.
Sources: World Travel and Tourism Council (2018, 2019); Economic Research Institute (2019).

Market penetration strategies

Of the companies in the case study, the beverage company was the only one that was able to spend a substantial amount on traditional marketing strategies, which was necessary because its differentiated products (beer, liquor, and soft drinks) each need to be heavily promoted. The company's marketing includes advertising in export markets, and buying and commissioning market research on prospective markets. Because the sector is highly competitive, the company frequently uses consulting companies to learn from the experiences of other businesses when trying to enter new beverage markets. It has successfully exported liquor and beer to the PRC and the Russian Federation since 2012.

The other companies do not spend much on marketing. Their strategy is to contract a distributor or dealer with its own distribution channels and to rely on the quality and reputation of their products to sell themselves. Some of the companies' business connections are made through informal channels, such as word-of-mouth from consumers. The natural cosmetics company targets niche markets that are receptive to the type of products it makes. It has private distributors in Hong Kong, China; Thailand; Taipei,China; Australia; India; and the Republic of Korea. The decision to export to these markets resulted from consumers who saw promise in the products and became distributors. Some of the company's products are sold on amazon.com to improve reach. Companies in Mongolia indicated a reluctance to sell their products through PRC online platforms for fear of counterfeiting.

The food and dairy producer was able to make the transition from using small traders to distribute its products in neighboring markets to formal distribution channels. The company's "organic dried milk from the grasslands of Mongolia"—as described by a senior manager—is sold in the PRC, Kazakhstan, and the Russian Federation. The transition was started through small-scale sales, which introduced their products to these markets. The success with small traders set the ground for scaling up sales by tapping into more formal distribution channels. A culture of drinking milk tea in the three countries helped. The company's products are also selling in the United States as ingredients for bakeries, and it is seeking to expand into other markets. The sea buckthorn company entered several Asian markets and Germany through fairs and exhibitions, where they met formal distributors. Currently, the company is not seeking to expand further, preferring instead to focus on the quality of their products and a reliable supply.

The financial services company used its networks and connections with businesses in other Central Asian countries, which share cultural and historical similarities, to expand into their markets. The company surveyed financial markets in Kazakhstan, the Kyrgyz Republic, and Uzbekistan, and interviewed local players in bank and nonbanking financial institutions. Their research revealed a gap between the needs of mostly smaller entrepreneurs in the three countries and the financial services available to them. The gap could not be closed by local financial institutions, thus creating a niche for the Mongolian company. To get into this market, it set up a subsidiary supported by local partners that could offer financing services, initially in one country and later to the other two. On the financing side, the company draws its resources mostly from capital markets in Japan, but also Germany, New Zealand, and the United States. Its founders were able to access to cheap funding from these markets because of their experience working in domestic and international financial markets.

To sum up, without external support and coordination, giving part of their profit margin to intermediaries appears to be a less expensive way for small companies to penetrate foreign markets than attempting to market their products themselves, especially under their own brands. For more standard products, such as liquor and beer, penetration costs are high, because companies in these markets incur large fixed costs of setting up and running a distribution network. Some companies can successfully operate as subcontractors, with no marketing needs (e.g., the auto parts maker). Similarly, personal connections can be used to reach export markets without much cost.

International standards and regulations

Most of the products the surveyed companies export are sensitive products—food, beverages, pharmaceuticals, and cosmetics—that require adherence to strict domestic and international standards. The larger companies were able to adhere to International Organization for Standardization and Mongolian Agency for Standardization and Metrology standards, but some of the smaller companies had difficulty doing so. That said, the adherence does not appear to be a significant impediment as many of the companies in the study are already leaders in their sector in terms of the product quality and can easily meet domestic and international standards.

The main problem with exporting is complying with the standards of recipient countries, which may differ significantly from domestic ones. The cosmetics company noted that strict standards apply to its sector and that Mongolia's lack of internationally recognized standardization is a barrier to exporting. To export skincare products, proof of origin is required and numerous product safety standards must be met. The company wants to break into new markets, particularly Europe, bit it is unlikely to do this in the near future because of the high cost of certification, at over €10,000 for a single cosmetics product. Thus, entering high-potential niche markets for cosmetics that use natural ingredients is still beyond the reach of small-scale Mongolian manufacturers with promising products.

International standards are even stricter for pharmaceutical products. The study's pharmaceutical company said that entering the European market would require completely different production and medical standards, which would raise the company's costs. Rather than overextend itself, the company plans to focus on shifting from exporting pharmaceuticals, which usually have the strictest requirements, to exporting supplements and health food. In the meantime, the company seeks to expand its joint business in the Russian Federation, where its local partner takes care of local standards. The company is also tapping into the new markets in the PRC.

The beverage company, with several decades of business experience, claims to meet Mongolian standards relatively easily; however, they are not recognized internationally, which means that further inspection and testing have to be carried out in destination countries. The company drew attention to the lack of internationally recognized high-tech laboratories and inspection centers to test food and beverage products in Mongolia. As a result, certification, standards, and inspection must be done by foreign facilities, with exporters bearing the higher cost, as recently experienced by the beverage company. The international distributors of the sea buckthorn company's products carry the testing costs in the importing country, while the company bears the costs of domestic standards that are required by Mongolian regulations for export goods.

Thus, companies in the study exploit various arrangements to meet international standards and regulations. In most cases, the arrangements result in significant outlays that create a financial burden for exporters. In many cases the burden is prohibitively high, forcing smaller businesses to forgo the export market potential.

Cost and risk sharing

As mentioned by the case study companies, one way to export is to form a joint venture with a foreign partner. The auto parts maker is in a joint venture with a Japanese company, which takes advantage of Mongolia's low labor costs. Because there is practically no domestic market for auto parts, the venture was set up solely to export its products. The Japanese partner provides investment, technology, and market information, which significantly reduced the market entry risk for its Mongolian partner. The Mongolian partner does not attempt to independently find new markets, but focuses on producing high-quality parts.

The pharmaceutical company exports to East Asian countries and the Russian Federation. For the latter, it partners with a pharmaceutical company in St. Petersburg, which handles marketing and sales as well as shares the investment. The Mongolian company developed and owns the patent for and design of the products, sending only raw inputs to its St. Petersburg partner, where these are turned into pharmaceutical products. The Mongolian company uses its competitive advantage of having specific knowledge of a local ingredient and how to make it into an effective pharmaceutical product. A potential danger of this practice is that it may run the risk of unauthorized technology transfers, resulting in competitors that have not invested in research and development.

The Mongolian company deals with this by supplying a key ingredient that is not available elsewhere. In doing this it takes advantage of its tangible asset and intangible knowledge, and combines them with the production factors available in the host country, such as human and financial resources and local knowledge of government regulations. Joint ventures like this can attract foreign partners and reduce delays and monitoring costs associated with contractual agreements with third parties. The company wants to expand into the PRC, and its chief executive said the same business model of finding a local partner who can shoulder investment and the associated risk will likely be used.

The financial services company, in its expansion into Central Asian markets, faced risks associated with weak local regulations and institutions, although these were to some extent mitigated by their local networks. Their local partners are not financially involved in the company, but act as consultants advising on dealing with government regulations and market conditions. The company transferred its loan and artificial intelligence software to its operations in the other countries to maintain its comparative advantage. But the absence of some critical pieces in the government's information system to which the software is connected, such as social security payments, can create a hurdle that is not present in the home market. The company expects to offset this increased risk by gathering further information on potential clients, thus incurring additional costs and charging significantly higher market interest rates on local loans.

Transport and logistics bottlenecks

High transport costs and logistics bottlenecks are major hurdles to increasing and diversifying Mongolia's exports—an issue that came across strongly in the company interviews. Because Mongolia is in the center of a massive continent, its private sector is bound to encounter difficulties with physically reaching international markets. The natural place to start exports is with Mongolia's two big neighbors, the PRC and the Russian Federation. Their proximity was a main reason for the food and dairy, beverage, and pharmaceutical companies entering these markets, as most of their products are bulky and produced in relatively large quantities.

All three companies cited customs, transport costs, and border controls as substantial burdens. Nearby markets, such as the PRC's Inner Mongolia Autonomous Region, are accessed by road; more distant destinations, by rail. The cosmetics and sea buckthorn companies face particularly high transport costs in their exports to the Americas, East Asia, and Europe, as air cargo is the most common delivery method for perishable goods. Another source of financial pressure for the cosmetics company is the cost of a few imported ingredients used in the production. For example, collagen and vitamin E must be bought in small batches to ensure their freshness. Because of the higher price of these ingredients, customs duties, and transport costs, the company's products become less competitive, resulting in lower profit margins.

The auto parts company generally transports its products by rail to ports in the PRC and then via sea freight to Japan. Sometimes the company has had to send parts by air cargo to meet delivery deadlines—a costly alternative.

Supply chain disruptions

Some of the companies cited supply chain disruptions as a main constraint to being able to take advantage of economies of scale and deliver a steady supply of their products. Companies that rely on agricultural raw materials face the same problem, whether they export or not. The main supply chain problem faced by the dairy company is the seasonality of milk production—an abundance in summer and a severe shortage in winter. The pastoral nature of animal husbandry also hinders an uninterrupted supply of raw milk. The technology in use does not allow storage of large quantities of milk for a long time. These factors undermine the sustainability of production and hinder exportability.

The beverage company has no problem getting inputs for its main export products (liquor and beer), but, as a major dairy producer for the domestic market, it faces severe disruptions in its milk production. To counter this and secure a more reliable supply of milk, the company made a contractual arrangement with a large farm that has a herd of several hundred cows. The contractual arrangement includes fixed prices (prices usually fluctuate severely due to seasonality) and loans for farmers to invest in improved shelter and cooling tanks. The initiative is small-scale so far and contributes only marginally to the company's supply needs. To more sustainably produce dairy products, Mongolia needs to use a better breed of dairy cattle, secure a reliable source of animal feed during the winter, improve cattle shelters, and improve the management of pastoral grassland to avoid overgrazing of public pastures. Traditional animal husbandry needs to be more commercialized, and this is also the case for agricultural raw materials that are turned into products.

The pharmaceutical company has difficulties securing the quantity of herbs it needs. The sustainability of the supply of wild plants native to Mongolia is an important supply chain concern for this company, as the wild plants grow in restricted geographical areas and cannot be harvested on a mass scale. The company holds training programs for its pickers to protect rare plant species and ensure a sustainable supply. The company is studying domesticating and growing its own plant inputs to boost supplies. The domestication of the wild-grown herbs, however, takes several years and cannot be done on a large scale.

As a result, the considerable potential for expanding the production and sale of health supplements to the Russian Federation is not being fully realized, and the growth in both is slow. Supply chain problems were less pronounced in the cosmetics company, because it is a small producer.

Labor market difficulties

Most of the companies used in the study find it hard to hire and maintain workers with the needed educational attainment and skills. Labor market regulations are not strict in Mongolia, and unions and similar organizations play a marginal role in labor issues. Minimum wages are regulated, but their impact on the labor market has not been studied. That said, minimum wages do not seem to be an issue with employers, who are more concerned with the low level of knowledge and skills in the workforce. Most of the companies in the study hire recent graduates of higher education institutions and then train them in the basic skills that are required in their business.

On-the-job staff training at the dairy company lasts about 2 years. But retention is a problem because, once trained, staff often move to higher paying jobs elsewhere in the industry. The pharmaceutical company has its own specialized higher education institution, which successfully competes with the public medical university in training pharmacists. This helps to resolve its human resource issues. The information technology sector has a brain-drain problem that forces up salaries, as companies in the sector compete to hire well-qualified specialists. The issue is aggravated by trained specialists finding better-paid jobs abroad, for example, in Japan.

Mongolia faces, in essence, two labor-market problems. The first is that its higher education system is failing to produce graduates with the knowledge and skills needed in the labor market. In other words, there is a supply–demand mismatch. The mismatch is not only due to the failure to train students in the needed professions but also in the quality of higher education and university curricula. The latter should be more focused on important learning outcomes, such as skills, instead of focusing on theories. This could be addressed by government intervention to ensure stricter accreditation for education institutions and regulations to increase the quality of courses.

Second, businesses, especially smaller ones, need to revamp their human resource practices. Many smaller businesses in Mongolia lack good human resource practices, including clear job descriptions, responsibilities and expectations on both sides, and an organizational culture. The auto parts company benefited from adopting the culture of kaisen (incremental but consistent improvement) from its Japanese partner, and it sets regular working hours. The company does not have a problem retaining employees, which seems to be an important constraint for most other companies in the study.

Coordination failures, public goods, property rights, and the role of government

As is widely acknowledged, one of Mongolia's advantages is its natural and agricultural resources from which companies are able to produce high-quality products. Many of the country's export products play on the theme of being exclusive, natural, and organic. These include organic cashmere and wool; herbal and natural skincare products; and organic food and beverages, such as raw honey, berry juices, and preserves. Promoting this theme globally can help Mongolian companies export. Because of the "public good" nature of this type of promotion, it should be undertaken by the government or nongovernment public entities, such as chambers of commerce and industry associations. The scattered efforts by individual companies, especially small firms, to advertise themselves as exclusive are both unlikely be effective and constitute a coordination failure. An "umbrella" type of promotion with government support will help smaller businesses, which are often excluded from fairs and other promotional events on cost grounds.

Similarly, individual exporters who use foreign laboratories to test their products incur onerous costs. Larger companies, such as the beverage company, can afford the costs, but the high costs of testing and meeting international standards still make their products less competitive. Smaller companies generally cannot afford such costs and so miss out on global market opportunities. Therefore, Mongolia needs to build modern, internationally recognized testing and standards facilities. Some laboratories in the region have questionable reputations and there is a market for reliable testing services to be provided not only for Mongolian producers but also for other producers in Central Asia. This could be an opportunity for the government to modernize its aging testing and certification facilities and become a regional presence in such facilities.

Another coordination failure is related to building and maintaining distribution channels in export markets. Many businesses in Mongolia, especially SMEs, find it difficult to enter international markets and build successful distribution channels. Some give up a substantial portion of their profits to do this, such the dairy and sea buckthorn companies. Others pay large fixed costs to sell their products abroad, such as the beverage company. The company studies indicated that distribution channels could be built jointly for businesses with similar products. For example, with cost-sharing arrangements, smaller businesses can use distribution channels that have been built by larger businesses but are underutilized. The dairy producer approached other food producers to jointly utilize their distribution network in the PRC's Inner Mongolia Autonomous Region and Kazakhstan, but found their outreach to be limited. Like laboratory testing and certification, this coordination failure should be tackled by the government or nongovernment public entities; for example industry associations.

The general manager of the natural cosmetics company noted that Mongolia's lack of adequate intellectual property protection makes innovation and research costly and risky. The company developed and patented several new products that were later used by former employees and subcontractors, leading to losses in the domestic market, although it did not affect exports. The pharmaceutical company, which has a large research and development unit, cited the lack of opportunity for Mongolian companies to profit from its research and new products on the domestic market using its intellectual property rights. The company has to manufacture the products in order to gain from its development work. Working with foreign partners created the manufacturing opportunity. Thus, the government should more strictly enforce intellectual property regulations, which will ultimately support research and development efforts and innovation in the private sector.

To summarize, the barriers Mongolian companies face to exporting can be internal (related to the business itself, such as insufficient resources, lack of experience, and inability to access market information) and external (institutional and coordination problems, lack of government incentives, market and property rights protection, and effective trade organizations). The company studies showed that businesses that are exporting successfully were able to at least partly overcome the internal barriers and that the external barriers can be significant impediments.

Promoting exports

Mongolia's nonmining resources, especially those in the natural environment, put the country in a good position to produce and export high-quality goods and services. With Mongolia's high trade costs and limited production capacity, targeting niche markets is the most promising route, which an increasing number of companies are doing to sell their products abroad. Global consumer trends, especially in high-income countries, and with rising incomes in the PRC, are creating favorable conditions for niche markets. Because of difficulties with competitively pricing Mongolian products, due to few economies of scale, the country's export focus should be on quality and exclusivity.

Mongolian producers will have to meet the expectations of niche customers by producing high-quality products that can be sold at higher prices. While some of the study companies are doing this, much needs to be done before such expectations can be met on a larger scale. As a first step, the products need to be rigorously promoted to break into export markets.

Promoting exports is a fairly new and still small-scale policy orientation for the government. Generally speaking, this support can be divided into the more traditional financial methods and nonfinancial measures. The government's focus so far has been on providing financial support for nonmining exports. The budget for this was ample during 2011–2015, when the prices of mineral commodities were high. At that time, the government made concessional loans and provided subsidies and tax breaks for domestic producers and exporters. But that level of support was unsustainable, and only had a limited effect on promoting exports, mainly because of institutional weaknesses. For example, the Small and Medium-Sized Enterprise Fund scandal in 2018 exposed the direct influence of lawmakers and high-level officials in dispersing low-interest loans without due diligence. Some even managed to take substantial loans for their family businesses. Political involvement in financing decisions leads to picking the "wrong" winners, a phenomenon prevalent in most countries with institutional weaknesses.

Some of the companies in the study pointed out the need for cheaper and more accessible financing as a tool for promoting exports. Indeed, financing for export promotion is vitally important for smaller businesses to sustain their production, especially at the earlier stages of development. Experience has shown, however, that financial support needs to be provided very carefully. Better governance in how this funding is dispersed needs to be in place before publicly financed export programs using these instruments are resumed. The Japan International Cooperation Agency loans to support SMEs fared significantly better than the government's loans, pointing to the importance of sound institutions in loan management (JICA 2018).

It is important that nonfinancial measures are used to support and promote nonmining businesses, a point made in almost all interviews with the companies used in the study. A greatly enhanced government role is vital for overcoming the coordination failures that are so prevalent among small businesses. The economic and trade functions of embassies must become more active in promoting the country's trade interests, especially in the PRC and the Russian Federation. Some larger companies, including Gobi Cashmere, have offices abroad, but this is beyond the reach of most companies. The government needs to step in to coordinate the efforts of smaller businesses to sell their products abroad by organizing trade fairs and providing market information, liaison, and consulting services. Chambers of commerce, industry associations, and the private sector also need to be more active in promoting exports by providing, among other services, insurance, certifications of origin, training, and market information.

Government support is needed to help exporting companies comply with international food and other safety standards, including the organic certification of products. A World Bank export development project cofinanced some such costs borne by small exporters in a matching grants program. But for small concerns to continue shouldering these costs may not be sustainable in the long run and the government does not provide this type of cofinancing. Facilities need to be built to reliably provide such services, financed by the government or by international financial institutions. Efforts are currently under way to resolve the food safety issue with the support of the Asian Development Bank. In 2015, it approved a $15 million loan to support Mongolia's efforts to continue strengthening food safety and animal and plant health standards to realize the country's vast potential by increasing agrifood exports to neighboring countries. The project targets improvements in laboratories in three *aimags* (provinces) that link border crossing points critical to the movement of agricultural and food products between the Russian Federation and East Asia.

Another critical area that needs prompt government action is to implement the Organic Food Law, passed in 2016. The act aims to identify the organic nature of production process and provide proper certification, registration, and labelling. However, the implementation of the law was met with difficulties as government agencies were initially unsure how to test products for organic certification. Many Mongolian products are likely to be organic (or can relatively easily qualify as organic), but proof is needed for them to capitalize on this and be able to sell such products abroad at higher prices. Correct implementation of the law should also protect customer rights by preventing wrongful claims by producers.

4.3 Policy Recommendations and Conclusions

Strong economic growth since about 2000 shows that, prior to the COVID-19 pandemic, the economy was undergoing a significant transition from an agriculture-based economy to one dominated by mining. Not only was the share of agriculture in GDP contracting and mining expanding, mining was dominating the economic structure. In this transition, Mongolia is finding it difficult to diversify the export economy away from mining, and experiencing further growth in services sectors, underpinned by mining-led economic growth.

The economy's lack of diversification is reflected in the product mix of its exports. Although exports have increased significantly since 2000, the share of nonmining exports has declined significantly. Textiles and livestock are still prominent exports, but no new export sector has emerged. Mongolia's export basket lacks sophistication, and little progress has been made since 2000 toward exporting more value-added products. Many factors lie behind the lack of diversification; the two most important ones are poor conditions for doing business and weak institutions (and the pervasiveness of corruption caused by weak institutions). Because of this, the private sector's opportunity to innovate and diversify has been hampered. The problem is exacerbated by a lack of infrastructure and the underuse of existing transport capabilities.

The government recognizes the need to diversify the economy and has adopted several long-term policies aimed at achieving it. But new policies are adopted without previous ones covering similar areas being fully implemented or evaluated. Policies, once drawn up and approved, are not supported by subsequent policy actions, such as step-by-step programs, public investment plans, and budgets. Diversification is hard for resource-rich countries, but in Mongolia, it is being held back by the aforementioned impediments.

Mining will dominate the Mongolian economy in the medium-to-long term. It is therefore important that the diversification strategy is well coordinated with the strategy for the mining sector. For example, the mining sector can provide technological spillovers to services, such as engineering or financial services, which then can develop into self-reliant and competitive sectors.

The companies used in the study are all in emerging export sectors and produce high-quality products. They recognize the need for their products to be "exclusive" in order to be successful in international markets. Most of the companies had difficulty breaking into export markets because of the many impediments that affect companies producing on a small scale. Logistics and transport bottlenecks were commonly experienced by the companies. Coordination failures mean that Mongolian companies lack the ability or opportunity for collaborative cost-sharing to reach export markets, and the companies do not have access to reliable supply chains or internationally recognized certification laboratories.

The companies interviewed pointed to a lack of government support for their export efforts. They did not, in the main, expect government financial resources, although many small businesses lack access to affordable credit. They did, however, want government to improve the business climate by easing tax and customs compliance and facilitating cross-border trade, among other things.

The findings in this chapter on small businesses are consistent with those of the Bank of Mongolia, which conducts annual surveys on SMEs to gain a better understanding of the business climate and the challenges SMEs face. SME owners are surveyed on their perceptions of the business climate, macroeconomic indicators, access to financing, the legal and regulatory system, and infrastructure development. The survey also covers revenue, costs, and income. The 2018 survey results indicated that government efforts to strengthen the sector were perceived to focus on access to finance, holding workshops, and advisory services. Survey respondents wanted government to cut red tape and the cost of basic government services, ease tax pressures, and combat corruption.

Most importantly, a public entity (for example, the government or an industry association) should play a key role in overcoming the coordination failure, which is common in all industries. The role could include support for building more reliable agricultural supply chains, information sharing, and common platforms or forums for existing and potential exporters. This is especially important if SMEs are to develop and contribute to economic diversification, even for import substitution. The government should also provide support to larger companies, as these have the greatest potential to export. It can do this by providing public goods such as transport, storage, and logistical facilities, and affordable and internationally recognized quality assurance and certification services.

The poor quality of higher education has shifted the burden for skills training to the private sector. Even common skills acquired by new graduates, such as accounting, are not adequate to meet the needs of the workplace. The situation is worse for technical professions, such as engineers, information technology specialists, and researchers and developers. The country's public universities have minimal government support and are financed largely by tuition and other fees, while private institutions rely solely on student tuition fees. The problems could be tackled by providing public funding to universities and research institutions, and simultaneously imposing higher standards on curricula, teaching faculties, and education laboratories and facilities. Higher education in Mongolia is expanding rapidly and this would be a good opportunity to start improving its quality and make it more relevant to the needs of the job market. That said, this is not an easy process to achieve nor one that can be done quickly. In the meantime, the government and international financial institutions should provide support to businesses for training their employees. The support for this by multilateral and bilateral organizations has had a limited effect, and projects and programs need to be better calibrated to the needs of Mongolia's businesses.

The impression left by the companies interviewed was one of enthusiasm and ingenuity for breaking into export markets. And many of them are succeeding despite the difficult conditions. However, the political situation and inconsistent policies are undermining Mongolia's export potential. Interventionist policies, as have been used by some countries in the region, are not the solution to diversifying the economy and increasing exports. These policies, especially large public investments without the participation of the private sector, could lead to inefficiencies and waste, particularly given the country's weak public institutions. The government should rather use policy to create a more favorable business climate and tackle coordination failures—and for the latter, chambers of commerce and industry associations can play an important role.