Executive Summary:

Democratic People's Republic of Korea Economic Statistics Project
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Executive Summary

In May 2007, a small group of North Korea analysts organized the Democratic People's Republic of Korea (DPRK) Economic Forum at the US-Korea Institute of the School of Advanced International Studies, Johns Hopkins University. This group focused on the fact that North Korea analysts, academicians and policymakers share concerns about the availability and quality of DPRK statistics. They face constant challenges to the validity of their analysis, arguments and policymaking. Often, there is no common ground for productive and meaningful policy discussion on North Korea due to data and statistics problems.

While there is considerable interest in and need for more "reliable" North Korea statistics and data, there remains a dearth of literature on this particular topic, especially any studies based on a comprehensive review of existing and available North Korea statistics data. Analyses identifying, comparing and evaluating DPRK data made available by different entities are also extremely limited. In April 2008, the Korea Development Institute School of Public Policy and Management approved a project titled the "DPRK Economic Statistics Project (The Project)" to address these issues directly.

The Project aims at three principal contributions: (1) to conduct a comprehensive review of available DPRK statistics; (2) to help data users make sound judgments in their use and interpretation of available DPRK statistics; and (3) to provide resources and findings that can help build a common ground for productive policy discussions among North Korea analysts, policymakers, and interested parties.

The Project systematically reviewed over 200 data sources, encompassing different data categories and wide geographical areas. The Project conducted an overall assessment of the identified databases, using both supply-side and demand-side criteria, including data sources and estimation methodologies, the characteristics of the available data in terms of language and comprehensiveness, data presentation format and database functions, data update frequency, accessibility and institutionalization.

DPRK statistics data in the public domain proved to be more prevalent than expected. However, the key problems identified in available DPRK statistical data included limited primary sources, resulting in a "reverse pyramid structure" of available DPRK data. Another major problem is accessibility issues – both access to data and to the data's underlying methodology – due to language barriers as well as proprietary handling issues such as required fees.

The "reverse pyramid structure" of available DPRK statistics is comprised of three tiers. First-tier primary sources, including data supplied by North Korean authorities or North Korea's trading partners, are relatively scant. Second-tier "authoritative" secondary sources such as data released by South Korean governmental agencies and international organizations exist on top of the first tier, but are also limited in number, scope and sometimes in accessibility. Third-tier data is the most numerous and commonly

accessible, but the producers of this data tend to cite secondary sources in their databases without much attention to technical notes or methodologies. Also, if there are errors in the first tier, the same mistakes are circulated and perpetuated in other databases, as can be discerned from an examination of some trade mirror statistics.

Data accessibility issues limit the ability of researchers to gain a better understanding of certain datasets, methods and assumptions adopted, as well as the underlying objectives behind the datasets. There are some comprehensive and user-friendly databases in non-universal languages, which may be overlooked by English-speaking analysts. But accessibility restrictions including fees as well as institution-level rules and regulations, along with an unwillingness to share information in order to protect "exclusive contacts" with data providers in North Korea, represent a significant barrier to analytical research.

The Project revealed that different data categories require different approaches to data collection and technical analysis in order to overcome problems related to the reliability and usability of DPRK statistics. Demographic and microeconomic data provide critical building blocks or assumptions, which are in turn used to derive macroeconomic figures such as GNI per capita. Yet, major information gaps exist in these most basic data categories. DPRK demographic and population data remain questionable, given that all reporting entities, regardless of their different assumptions on mortality rates, rely on North Korea's first census conducted in 1993. Until the results of the second census conducted in 2008 are disclosed, we have no choice but to interpret DPRK demographic figures – and any data derived using such figures – with caution. Price data will also continue to be a challenge for data collection and analysis, requiring creative solutions for knowledge sharing such as the data depository system proposed in this Project.

Concerning macroeconomic data, the issues and debates surrounding North Korean GDP figures stem partially from common misinterpretation of the implicit objectives of certain datasets, as well as misunderstanding of fundamental differences in underlying assumptions and estimation methods, and inappropriate comparisons of data using non-comparable sources. Methods and general procedures used by "authoritative" secondary entities to estimate GDP, including the Bank of Korea (BOK), U.S. Central Intelligence Agency, the United Nations and the Center for International Comparisons at the University of Pennsylvania all appear logical, for the most part. But certain assumptions are not clearly explained and therefore their validity may be questionable. In particular, the BOK's unique perspective and implicit objectives reflected in its method to grasp the state of the North Korean economy using South Korean prices require careful consideration. Beyond that, comparisons of GNI data from non-comparable sources such as the Systems National Accounts-based GNI using Korean prices and purchasing power parity-based GNI using international prices also seem to cause numerous futile discussions and debates.

The Project's trade statistics analysis is intended to serve as a "user guide" to help data users understand the advantages and disadvantages of the available trade databases and to choose among them appropriately depending on the analytical purpose. Here, the central issue is not the lack of available data. There are quite a number of data sources available

to choose from (albeit almost all are mirror statistics). Instead, the questions are reliability and suitability. Therefore, the Project analyzed the various trade databases based on five conceivable utilities or analytical objectives: (1) to grasp North Korea's aggregate trade level; (2) to understand the historical trend of North Korea's overall trade and trade structure by country groups; (3) to obtain information on inter-Korean trade to be aggregated with the DPRK's external trade to come up with North Korea's "real" international trade level; (4) to learn about North Korea's trade with individual partner countries at the commodity level; and (5) to enable value-added analyses of North Korea's international trade, such as marketing strategies and competitiveness analyses.

In-depth discrepancy analysis revealed that wide gaps exist in the DPRK's aggregate trade figures among databases, mainly because of differences in the number of trading countries covered and the methods to adjust mirror statistics or drop partner trading countries. Based upon various statistical sources, one can observe an undeniable trend of increasing trade between North Korea and developing countries as a group over time. Given this trend, dropping small developing countries entirely from DPRK's trade database on the grounds of reliability may pose serious problems in interpreting accurately the aggregate level, historical trends and composition of trade by country or region. Aggregate trade data compiled by the UN and the IMF are likely to more closely reflect reality, given their more comprehensive coverage of trading partner countries.

The South Korean government faces unique legal restrictions and is therefore not likely to announce North Korea "international trade data" inclusive of inter-Korean commercial trade. As a result, North Korea analysts will need to continue the practice of aggregating the two statistics (North Korea's external trade and inter-Korean trade) as a necessary step to derive "real" international trade. But a simple aggregation, as currently practiced by many entities and analysts, should be interpreted cautiously as inter-Korean trade figures include considerable grant aid which registers as non-commercial trade.

The Project accessed a variety of bilateral and multilateral trade databases, enabling analysts to conduct in-depth commodity level analyses. It also encountered examples of highly sophisticated and readily available analytical tools embedded in some trade databases, deriving both static and dynamic aspects of trade performance and competitiveness. These databases can provide an insightful overview of North Korea's global status and level of participation in the world economy.

In sum, the fragile and unreliable "reverse pyramid structure" of available DPRK statistics needs to be altered so that more North Korean primary data sources become available and are shared to build a foundation for sound economic analysis and policymaking. Ultimately, the best way to address the fundamental issue of the lack of original sources and accessibility to DPRK statistics is to convince North Korea to become a more open society. However, amid challenging circumstances of limited accessibility to first-tier North Korean entities and primary data, the second-best way to improve the reverse pyramid structure of DPRK data is to develop a realistic and practical knowledge-sharing forum among the second-tier authoritative entities as well as informed analysts from concerned countries.

If second-tier entities and analysts can cooperate effectively, their collective role can be instrumental. First, they can collectively share a better understanding of the available DPRK data among authoritative entities. Second, they can help third-tier entities and the general public use DPRK data more wisely and avoid repeating or perpetuating common misinterpretations, or compounding mistakes made by first-and second-tier entities and analysts. Third, eventually, the second-tier entities will be in a better position, when such opportunities finally arise, to make a difference in solving the fundamental problem by assisting with capacity-building for first-tier North Korean entities, helping them to assemble and construct better statistical data and thereby rectifying the "reverse pyramid structure" of DPRK economic statistics.

The Project identified four characteristics for a new widely accessible database for effective knowledge sharing the construction of which could be explored beyond the current phase of the Project: (1) inclusion of comprehensive data along with user-friendly and simple but powerful analysis functions; (2) inclusion of data from multiple sources, along with methodologies for comparisons; (3) highlighting of rare and unique data; and (4) database sustainability through partnership with selected entities and the data depository system.