FOR INFORMATION

SM/20/147
Correction 1

September 17, 2020

To: Members of the Executive Board

From: The Secretary

Subject: **Republic of Korea—Publication of Financial Sector Assessment Program Documentation—Technical Note on Systemic Risk Analysis, Financial Sector Stress Testing, and an Assessment of Demographic Shift in Korea**

Board Action:	The attached corrections to SM/20/147 (9/10/20) have been provided by the staff:
Evident Ambiguity	**Page 21**
Factual Errors Not Affecting the Presentation of Staff's Analysis or Views	**Pages 10, 11, 14, 17**
Questions:	Mr. Natalucci, MCM (ext. 37108) Ms. Ilyina, MCM (ext. 35351) Mr. Papageorgiou, MCM (ext. 34261)

operate across a broad cross-section of the financial sector, with subsidiaries being engaged in insurance, capital markets and asset management business.

4. The business models of Korea's banks are broadly conventional (Figure 2). Banks, including ODIs, are primarily funded by retail deposits. Assets are concentrated in loans, mostly related to real estate. Bank loans are split about equally across lending to households and firms, with 80 percent of the stock of corporate bank loans outstanding to SMEs. Most SME loans are collateralized against real estate. Commercial banks have a relatively diversified loan portfolio and securities' holdings. State-owned banks are focused on lending to SMEs, which is reflective of Korea's economic policy priorities.

5. The insurance sector is large, highly concentrated, and saturated (Figure 3). The sector comprises 24 life insurance firms and 30 non-life insurers, managing KRW 1170 trillion in total. Insurance penetration (premiums to GDP) is one of the highest in the world, exceeded only by Taiwan Province of China and Hong Kong SAR. This reflects, in part, the central role that life insurance has played as a conduit of savings in Korea, where life insurance assets account for more than 20 percent of household financial assets, well above the OECD average. Cross-sectoral linkages exist as insurers typically also offer financial consulting services and are involved in asset management. The bancassurance market is well developed and 50 percent of new business in life is sold via banks. The market is dominated by large firms owned by FHCs and Korea's largest conglomerates (chaebols).

6. The Korean capital market is one of the most active markets in Asia. The equity market has a market capitalization of around USD 1.8 trillion with foreigners holding around 35 percent of the listed Korean stocks. The largest five conglomerates account for over 50 percent of market capitalization. Compared with major advanced and emerging market economies, the price-to-book and price-to-earnings ratios of Korean companies are notably lower, which has been coined the "Korea discount" and attributed to various factors, such as in relation to North Korea, and the complicated ownership and governance structure of many Korean corporations and especially large firm conglomerates.

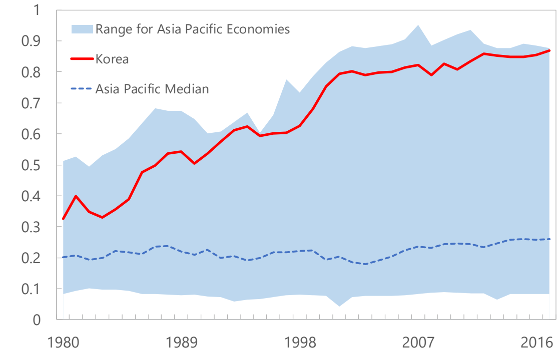
7. The Korean bond market is dominated by government and other public debt, while 'green' or ESG bonds' importance is rising. Korea's asset management industry has experienced robust growth over the past few years reflecting changing saving patterns but also a search for yield by households and other investors. Assets under the management of privately placed funds, derivatives-linked products such as equity-linked securities, etc., all grew at double digit rates over the past year and now amount to about KRW 500 trillion; roughly 30 percent of GDP.

Figure 1. Korea: Financial System Structure

Korea's financial system is among the most developed in Asia[1]...

Financial Development Index, 1980-2017

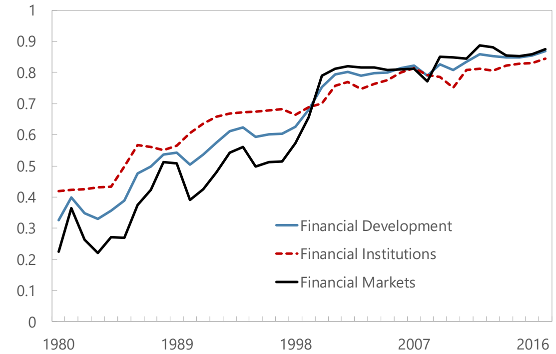
(Range 0 to 1: the higher the value, the more developed the financial system)



...with both financial markets and institutions broadly developed.

Financial Development Index, 1980-2017

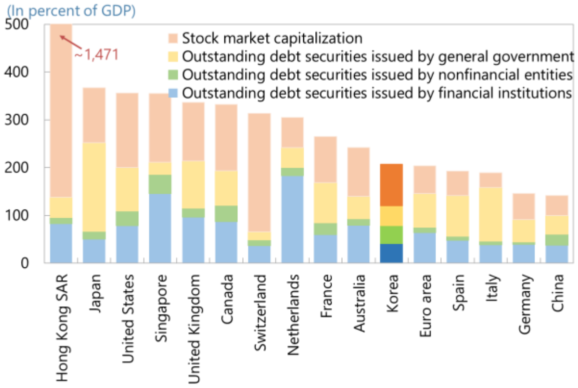
(Range 0 to 1: the higher the value, the more developed the financial system)



Market-based financing is low but comparable with other advanced economies...

Value of Financial Markets, 2018

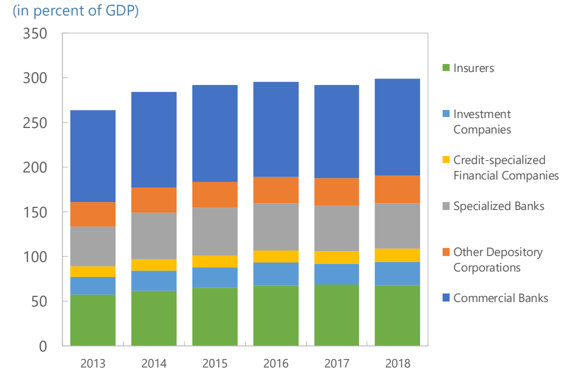
(In percent of GDP)



...while banks and other depository institutions hold most financial institutions' assets.

Financial Institutions' Assets

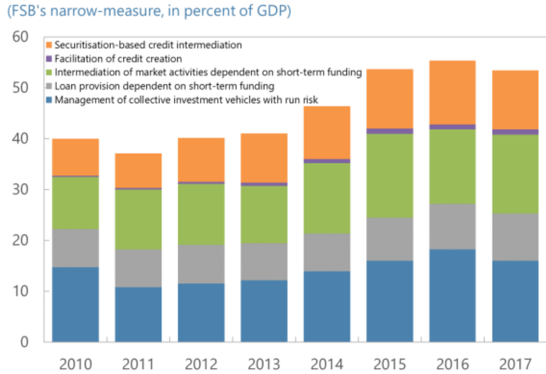
(in percent of GDP)



Nonbank financial intermediation is dependent on short-term funding...

Non-Bank Financial Intermediation Korea

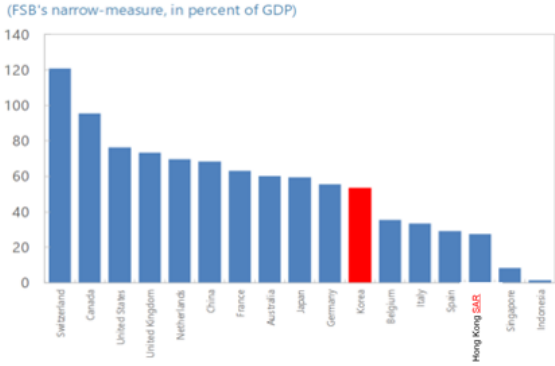
(FSB's narrow-measure, in percent of GDP)



...but remains relatively small compared to other major jurisdictions.

Non-Bank Financial Intermediation, 2017

(FSB's narrow-measure, in percent of GDP)



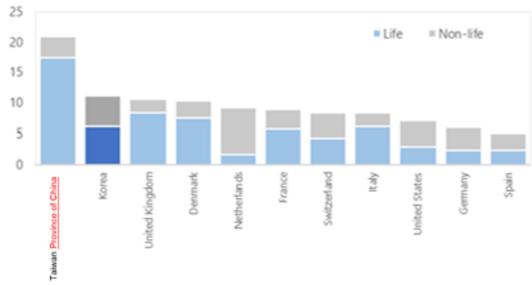
Sources: Bloomberg, IMF Financial Development Index, IMF World Economic Outlook, FSB Global Monitoring Report on Nonbank Financial Intermediation 2018, FSS.

1/ For more details about the financial development index and its financial institutions and markets subcomponents see IMF SDN/15/08 and IMF WP/16/5.

Figure 3. Korea: Structure of the Insurance Sector

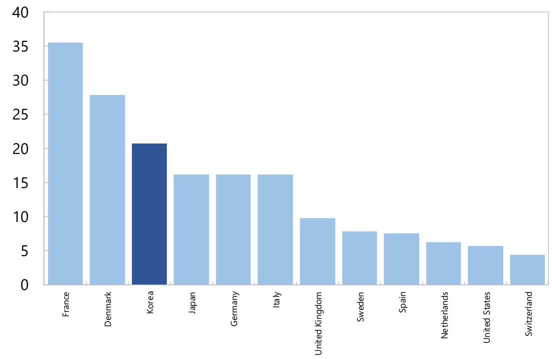
Insurance penetration in Korea is amongst the highest in the world…

Insurance Penetration
(premiums in percent of GDP)



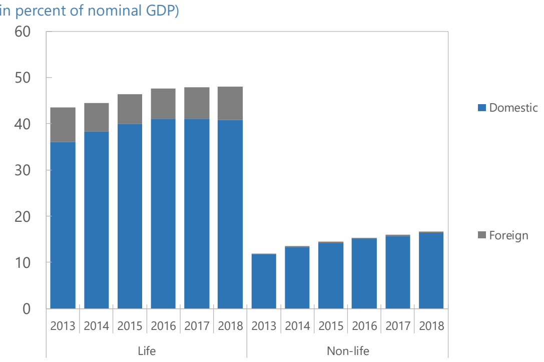
…as insurers play an important role in household wealth management, with a life insurance reserves representing a significant share of household financial assets

Life Insurance Reserves
(In percent of total household financial assets)



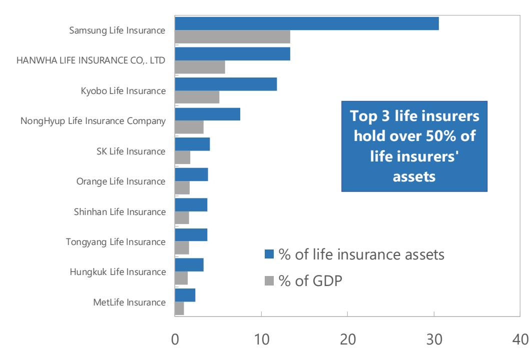
Total assets of the insurance account are sizeable, with limited foreign ownership.

Insurance Assets by Ownership, 2013-18
(in percent of nominal GDP)



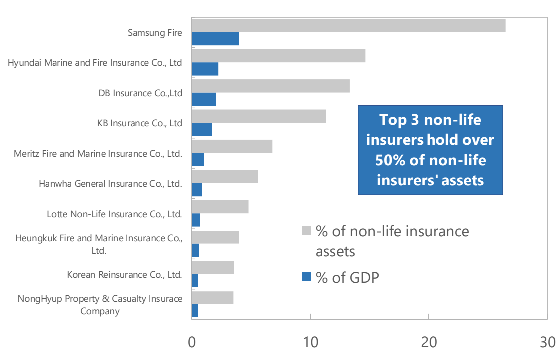
The top 3 life insurers hold over 50 percent of the life sector's assets…

Top Ten Life Insurers by Asset Size
(in percent of life insurance assets & GDP)



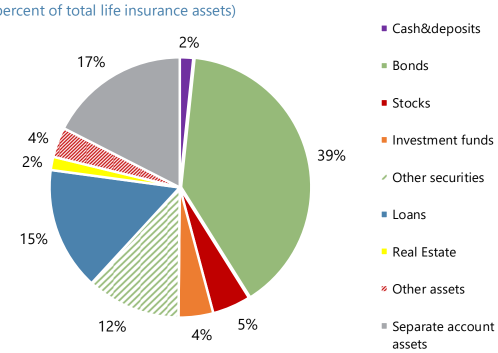
…as do the top 3 non-life insurers.

Top Ten Non-Life Insurers by Asset Size
(in percent of non-life insurance assets & GDP)



Assets are concentrated in bonds, but loans are also sizeable.

Life Insurance Assets
(in percent of total life insurance assets)

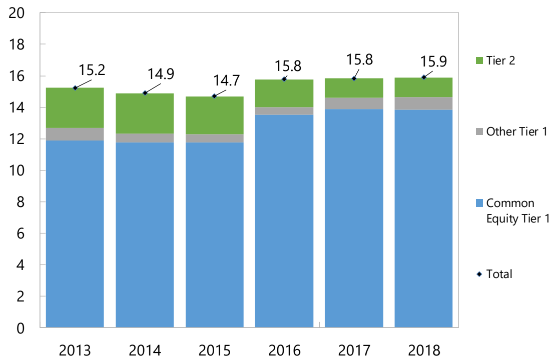


Sources: FSS, IMF World Economic Outlook Database, and IMF staff calculations.

Figure 4. Korea: Financial System Performance

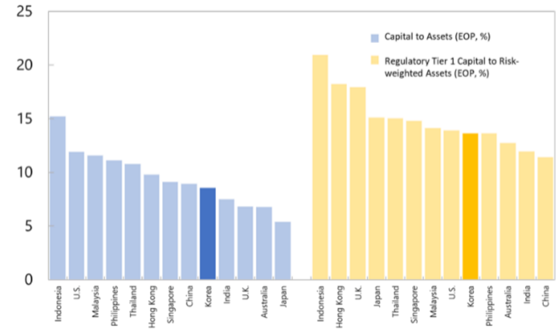
Capitalization of Korean banks has improved with the implementation of Basel III…

Capital Adequacy
(Commercial banks, in percent of risk-weighted assets)



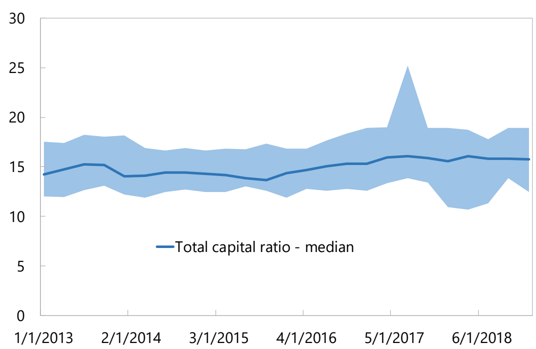
…and capital is of high quality compared to a broad set of comparator countries.

Capital Adequacy and Leverage
(Commercial banks, 2019Q2 or latest, in percent)



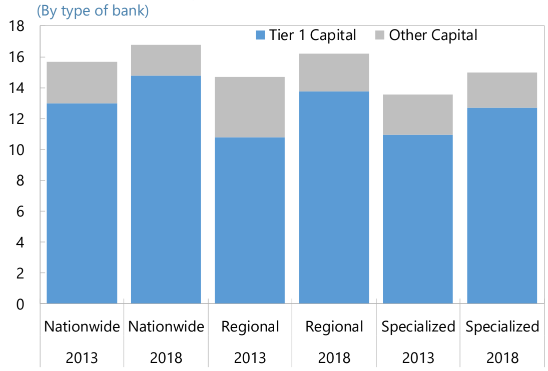
…and across Korean commercial banks.

Capital Adequacy
(Commercial Banks, total capital in percent of risk-weighted assets)



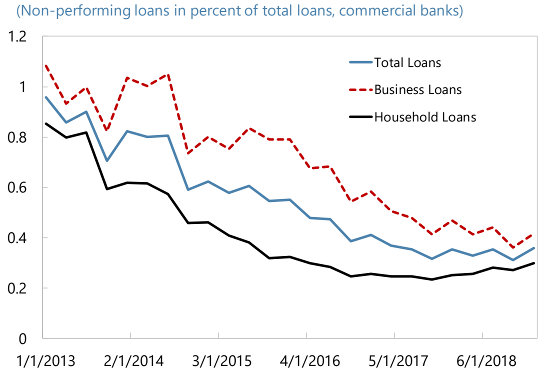
Specialized banks have seen also some improvement in capital adequacy but from a lower base.

Capital Adequacy
(By type of bank)



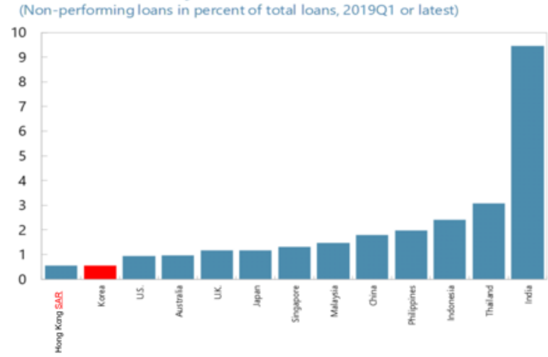
NPLs are low across all loan categories…

Bank Asset Quality
(Non-performing loans in percent of total loans, commercial banks)



…and in comparison, to other ~~countries~~ jurisdictions reflective of rapid disposable of bad loans to asset management companies.

Bank Asset Quality
(Non-performing loans in percent of total loans, 2019Q1 or latest)



Sources: FSS, Haver, and IMF staff calculations.

13. The macroeconomy has performed well since the last FSAP but faces headwinds. GDP growth was robust at around 3 percent in 2017 and 2018, reflecting strong export growth and business and construction investment. The semiconductor industry, a stable driver of South Korea's growth, has experienced a cyclical slowdown. Growth is expected to remain sluggish (Table 4) due to ongoing trade tensions and low business confidence, notwithstanding a boost from monetary and fiscal policy easing. Cross-border financial flows have been volatile, while the Korean won has depreciated partly on the back of trade ~~and political~~ tensions between the United States and China.

14. The financial cycle has reached an advanced phase with household debt among the highest for OECD countries (Figure 8). Financial conditions in mid-2019 were close to historical average after several years in easy territory, while the recent monetary policy loosening should counter the impact of rising market risks somewhat. The ratio of total non-financial private sector debt to GDP has reached an elevated level—standing close to 200 percent—and core debt (debt of the non-financial sector owed to banks) amounts to about 130 percent of GDP, which is high in international comparison. Although the trend has been upward, an accelerating trend is not evident. The credit-to-GDP gap is close to zero. After some deleveraging, corporate credit growth has picked up again, particularly to the SME sector driven by sole proprietors and often secured by lending against real estate.

15. The upward trend in house prices has moderated, but household leverage in real estate remains high (Figure 9). Housing supply has expanded over recent years and large sections of the financial sector are exposed to the housing market. Household lending growth, primarily related to housing, has slowed but remains above nominal GDP growth while household debt as a ratio of disposable income stands at about 180 percent, which is among the highest across the OECD countries.

16. Demographic shifts are posing a long-term challenge for the financial sector (Figure 10). By 2050 almost 40 percent of the population is expected to be older than 65, up from 13 percent now, while the working-age population will shrink significantly given Korea's low birth rate. One implication is that the proportion of debt held by older households will increase, also reflecting reverse mortgages promoted by the KFHC, and the DSTI may rise significantly. Adverse demographic developments are having an impact on capital flows as a rising share of growing retirement savings is invested abroad by pension funds, insurance firms, and asset management companies. This demographic shift, combined with competitive pressures from China, has raised concerns that Korea might be destined for a prolonged period of low growth and inflation with an erosion of its financial buffers. Structural changes and long-term implications that these demographic shifts are expected to exert on banks, insurers and other economic agents will be discussed later in this note.

17. The rapid rise in COVID-19 virus cases in South Korea since February 2020 likely implies a significant drag on economic activity, which is being tempered by a proactive policy response of Korea's government. The Korean authorities have taken bold steps to contain the COVID-19 outbreak and mitigate its impact on public health and the economy, including through large-scale testing of the population to rapidly identify, isolate, and treat infected patients. The Korean government is also using its fiscal space to mitigate the macroeconomic impact of the