



The Korean Steel Industry in Retrospect : Lessons for Developing Countries

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Background

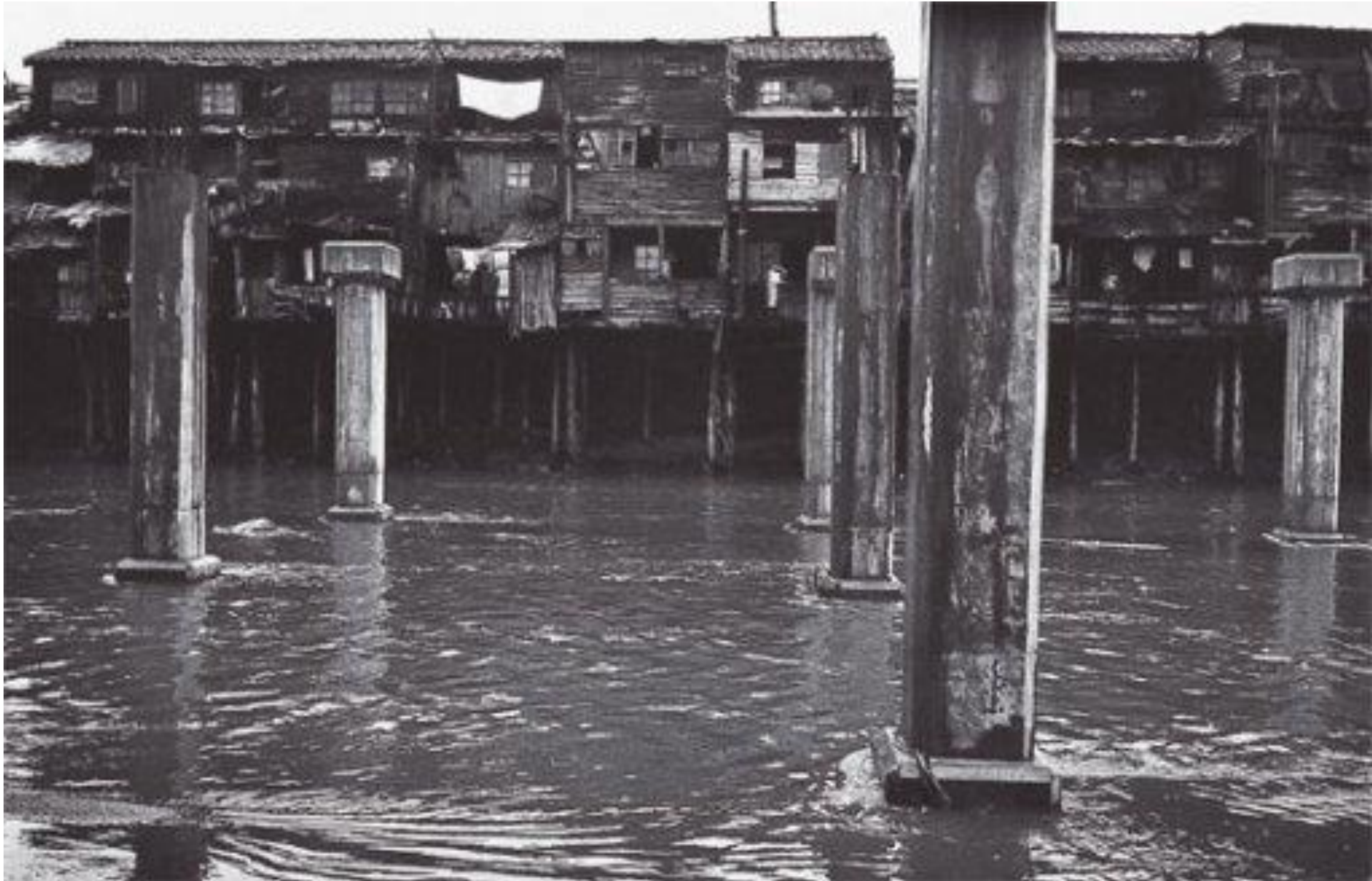
- At the end of the **Second World War** in 1945, South Korea had secured its independence, but **five years later, the Korean War** broke out.
- A GDP per capita at a nominal value hovered around **USD 67** in **1953** when the **Korean War ended**.
- It remained one of the **world's poorest countries**.
- However, the South Korean economy **grew exponentially** following the **government-led economic development** initiatives launched in the early **1960s**.

During the Joseon Period (1392-1897), Cheonggyecheon was a stream running through the centre of Seoul from east to west.

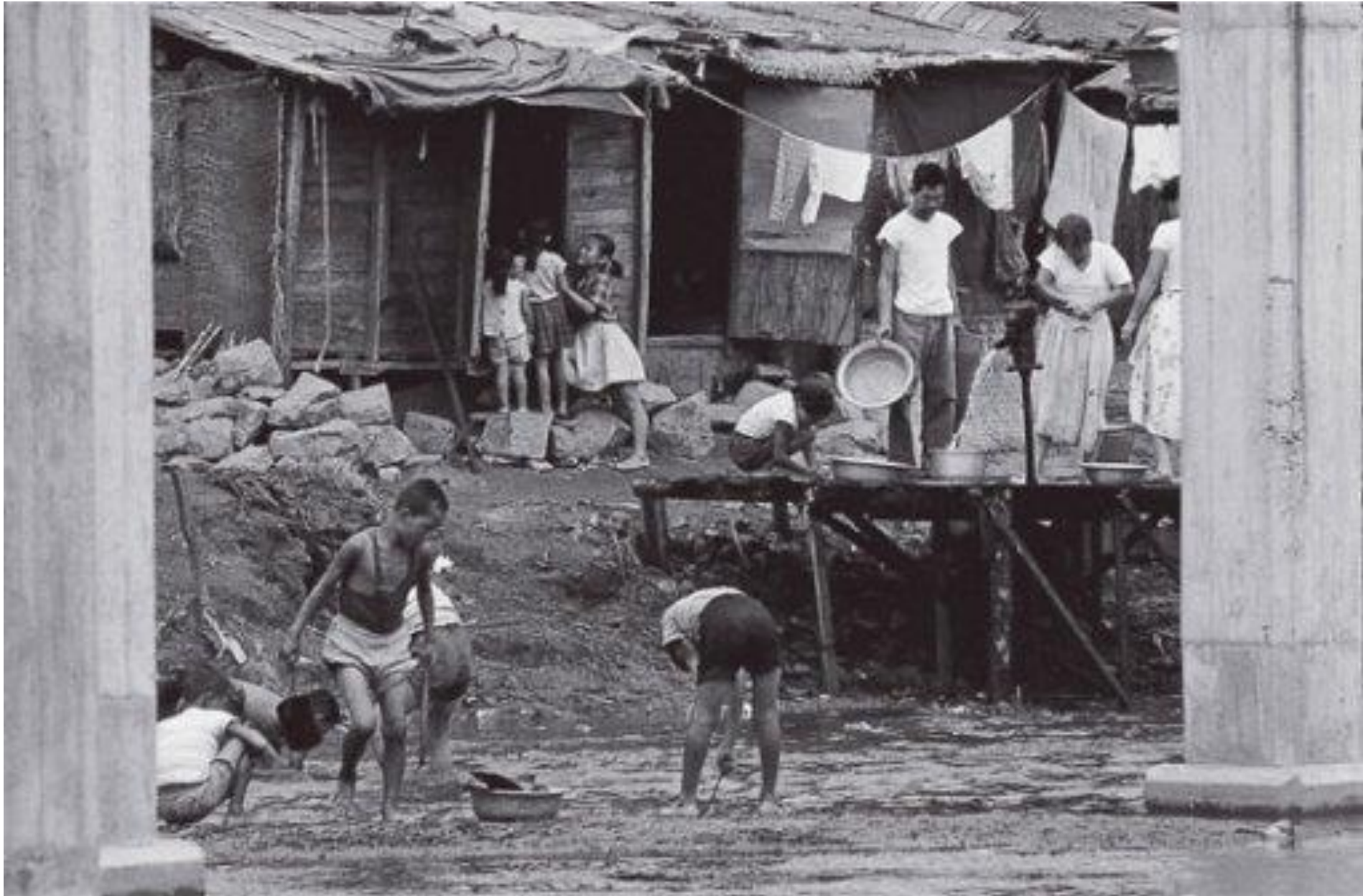
Cheonggyecheon stream during 1910-1945



Cheonggyecheon stream in 1950s



Cheonggyecheon stream in 1950s



Cheonggyecheon stream in 1950s



Cheonggyecheon stream in 1950s



Cheonggyecheon stream

1950s



2018



Background (cont'd)

- Today, Korea has joined the ranks of **advanced countries**, becoming the world's **seventh-largest exporter**, **12th largest economy** in terms of GDP, and 30th largest in terms of GDP per capita as of 2016.
- In the **1960s** the **Korean steel industry** was **starting from nothing**: it lacked technology, resources, and expertise.
- However, as shown in Table 1, by the mid-1990s it had become the **world's sixth-largest** steel producing country and has maintained this status ever since.

Table 1. Development of the Korean Steel Industry

	1970	1975	1980	1985	1990	1995	2000	2005	2010	2016
Crude steel production (Mt)	0.5	2.5	8.6	13.5	23.1	36.8	43.1	47.8	58.9	68.6
Share of global production (%)	0.1	0.4	1.2	1.9	3.0	4.9	5.1	4.2	4.1	4.2
World ranking	34	29	13	10	7	6	6	5	6	6
Apparent crude steel use per capita (kg)	51	84	141	234	501	827	851	1,015	1,101	1,171

Source: "Steel Statistical Yearbook" worldsteel (2016)

Table 2. Forward-Backward Linkage Effect in the Korean Industry

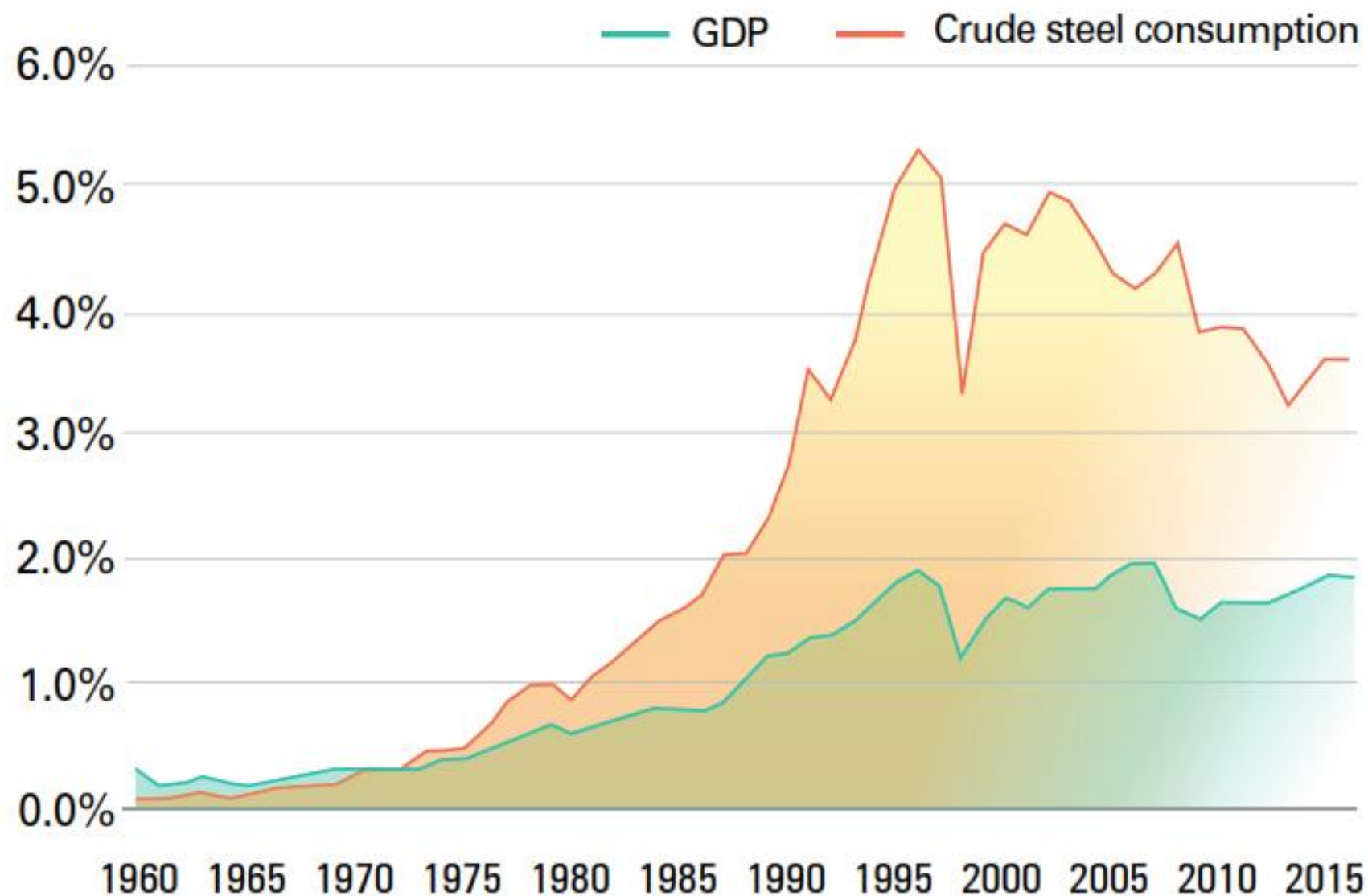
	Primary metal	Chemical	Machinery and equipment	Construction	Transport equipment	Precision industry
Impact coefficient (Backward linkage effect)	1.282	1.106	1.220	1.177	1.278	1.092
Sensitivity coefficient (Forward linkage effect)	1.988	1.945	0.915	0.601	0.931	0.641

Source: Numbers are based on 2014, Source: Bank of Korea (BOK)

What was the key to this success?

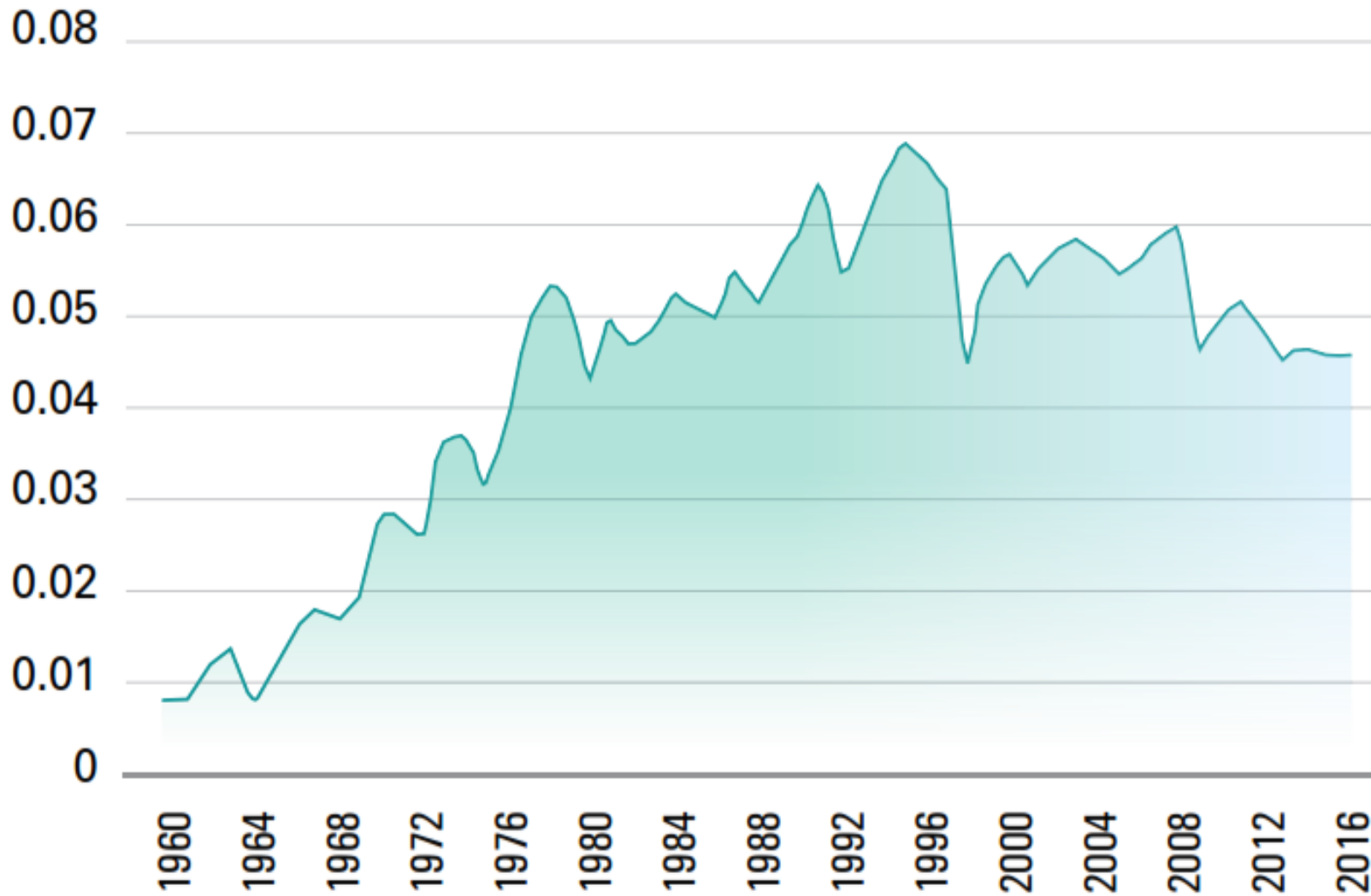
- The experience of the **Korean steel industry** offers **useful lessons** for emerging economies **pursuing economic development**.
- Many emerging economies are seeking to achieve the self-sufficient development of their steel industries since steel, dubbed “**the staple of industry,**” is the **fundamental industry** that underpins other basic industries, such as the **automotive, home appliance, shipbuilding, machinery,** and **construction sectors**.
- In addition, with **high forward-backward linkage effects**, as can be seen in Table 2, the steel industry can bring about **positive ripple effects** in an entire economy, including in **investment, employment,** and **growth**.

Figure 1. Share of Korea in Global GDP and Steel Consumption



Source: IMF, worldsteel

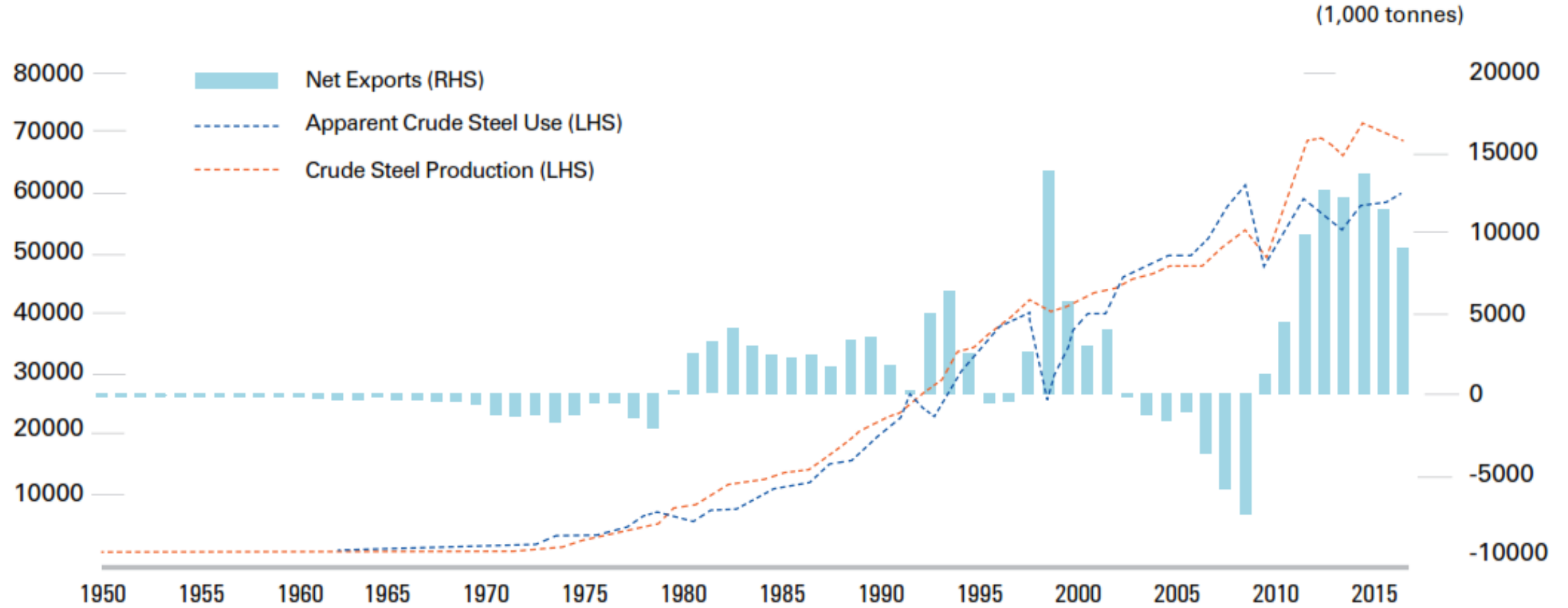
Figure 2. Korea's Steel Intensity of GDP



Source: BOK, worldsteel

Note: Steel intensity = Crude steel consumption (kg) / Nominal GDP(KRW)

Figure 3. Korea's Apparent Crude Steel Use, Crude Steel Production, and Net Exports



Source: worldsteel