

**World Intellectual Property  
Report 2017**

# **Intangible Capital in Global Value Chains**

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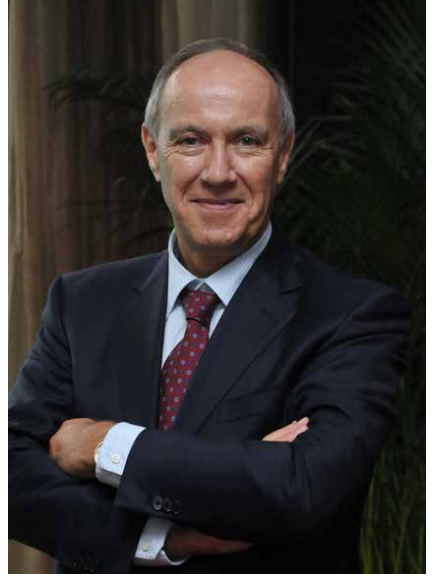
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# Foreword

Technological innovations and openness of trade have profoundly changed the face of global production. Converting raw materials into parts and components, assembling final products and delivering them to the end consumer involves supply chains that span an increasing number of economies across the globe.

The emergence of these so-called global value chains has been a force for good: they have made a large range of consumer products more affordable, stimulated economic growth and promoted the integration of developing countries into the global economy – creating opportunities for economic development and the alleviation of poverty.

Intangible capital – notably in the form of technology, design and branding – permeates global value chains in important ways. It accounts for a good part of what consumers pay for in a product and determines which companies are successful in the marketplace. It also lies at the heart of the organization of global value chains: decisions on where to locate different production tasks and with whom to partner are closely tied to how companies manage their intangible capital.

A large number of research reports have been published on the causes and consequences of the rise of global value chains, and many of these reports have acknowledged the key role played by intangible capital. However, few insights are available on why, how and how much. With our *World Intellectual Property Report 2017*, we hope to help unpack the intangibles black box, in particular by shedding light on how intellectual property (IP) fits into this box.

The report begins by reviewing how global value chains have come about and how they are organized. Against this background, it reveals new estimates of the macro-economic contribution of intangible capital to global value chain production. These estimates show that intangibles account for around one-third of production value – or some 5.9 trillion United States dollars in 2014 – across 19 manufacturing industries.

Following the approach of our 2015 report, we complement these economy-wide perspectives with case studies of specific global value chains – namely, coffee, photovoltaics and smartphones. These three cases highlight the different mix of intangibles embedded in different consumer products and provide concrete insight into the role that different forms of IP play in generating returns to investments in innovation and branding.

In addition, they explore how developing economies – notably China – have succeeded in participating in global value chains by building their own intangibles, and what opportunities may exist to pursue similar strategies in the future.


The evolution of global value chains has been disruptive, with some companies thriving and others failing. It has accelerated the structural transformation of economies, with some workers losing their jobs and others seeing their skills richly rewarded. Technology continues to transform global patterns of production and is bound to lead to further disruption. For example, advances in 3D printing, robotics and automated manufacturing may well lead companies to relocate certain production tasks closer to the end consumer. In addition, the fast growth of emerging economies is set to prompt shifts in the geography of global value chains.

Policymakers need to respond to the disruptive forces unleashed by globalized production. Global value chains are a human creation and could be reversed, but this would risk even bigger disruption. Shaping them in such a way that they benefit societies as a whole is thus an important policy imperative.

As always, a report of this nature leaves important questions open. Most importantly, while we present – for the first time – concrete estimates of how much income accrues to intangibles in global value chain production, it remains to be established who ultimately gains this income. At the level of countries, cross-border ownership and sharing of intangible assets make it difficult to associate assets and earnings with a particular country location. At the level of individual earnings, little systematic evidence exists on how intangibles affect the compensation of workers at different skills levels. Future research that offers empirical guidance on these questions would be of great value.

We hope that this report will inform discussions on the evolving nature of global value chains taking place in different policy forums, and look forward to exploring the contribution of the IP system to global value chain production in our ongoing dialogue with Member States.

Francis GURRY  
Director General



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