Free flow of data key to economies in South-east Asia

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OVER the past few years, there has been a global proliferation of regulatory restrictions of the Internet, mainly based on concerns about privacy and national security. More often than not, new legislative initiatives have included some form of restrictions on data, such as the requirement that companies store and process data within the country in which it was collected.

Calls for increased online data security are legitimate and warranted. But restricting where data is stored is not the solution. There are significant costs involved in the way governments are trying to implement data service regulations. But the proposed regulatory laws do not always achieve the wider policy goals of data security in an efficient way. In fact, as we will explain, our research shows that such laws have an economic cost.

Storing data within the borders of one country is not just ineffective against foreign surveillance. Data security experts also believe that it increases the possibility of data breaches and abuse. This is because when data is mandatorily stored within a country's borders, it creates a tempting "honeypot" for criminals to target the data for exploitation and hacking.

Moreover, restricting the free flow of data can harm the economy that is enforcing it. Given the nature of today's globally interconnected economy, poorly designed national policies that increase data processing costs – as we see in Indonesia and Vietnam – can have a severe economic impact since many sectors of the economy rely on digitally supplied goods and services.

Apart from laws on the localisation of data, Vietnam is considering data policy restrictions such as the right to be forgotten and government access to company data. Indonesia has included consent requirements, right to review, notification breaches and administrative sanctions in case of non-compliance.

Restrictions on data flow hamper the ability of multinational firms to consolidate their operations across countries, thus preventing them from reaping the productivity benefits of cheaper inputs needed in order to offer competitively priced goods and services. And by forcing multinational companies to establish a local IT/server infrastructure, these restrictions will also lead to lower economies of scale.

In our research, we wanted to measure the effects of localisation and other requirements that threaten the free flow of information across borders. To do this, we looked at the type of data regulation proposed in countries willing to apply data flow restrictions. We then used an index developed by the Organisation for Economic Cooperation and Development that is a proxy for these regulations. These proxy figures were then correlated with total factor productivity across around 30 countries and 20 sectors.

We then adjusted the index by taking into account the suggested regulatory barriers in data services. In this way, a new index was attained that attempts to measure the impact of these regulatory changes in data services on the rest of the economy. Next, we plugged this index into an existing Global Trade Analysis Project model (GTAP), which calculated for welfare, investment and trade losses as a consequence of policy changes. GTAP is a global network of researchers who cooperate to produce a consistent global economic database. It covers many sectors and all parts of the world which allow for analysis of the economic inter-linkages across countries.

We found that the impact of recently proposed or enacted legislation led to a 1.7 per cent reduction in GDP in Vietnam and a 0.5 per cent reduction in Indonesia. These are sizeable numbers, valued in millions of dollars. To put this into context, a 0.5 per cent drop in Indonesia's GDP is equivalent to an annual production loss of US$430 million (S$534 million).

The negative impact on investment is considerable. We calculated this as minus 2.6 per cent for Indonesia and minus 3.1 per cent in the case of Vietnam, causing their economies to miss out on roughly US$510 million and US$259 million respectively. As a consequence of a loss of competitiveness, exports would also be affected by minus 1.7 per cent in Indonesia and minus 0.5 per cent in Vietnam.

These results illustrate the importance of cross-border data flows to today's global economy.

When data flows are cut off or constrained, it affects not only Internet companies such as Facebook and Google but almost the entire economy.

For firms in the retail, financial service, communication and logistics sectors, data accounts for a large part of their production input. Banks need the credit data of their customers in order to design better financial products, while international couriers cannot deliver packages without access to personal data from overseas.

Even in manufacturing, most large investments today are related to IT systems and data connectivity. Data is an increasingly important raw material for the industry. Exporters rely on using or sharing data with their foreign customers for efficient production, research and marketing.

It is no surprise then that South-east Asia's export-driven economic growth would incur a big setback if more countries in the region were to constrain cross-border information flows. Consumers would also suffer, as the cost incurred by companies results in higher prices in goods and services consumed. It would also destroy a substantial number of jobs as investments are diverted to other countries.

In short, data is now just as crucial to the global economy as electricity or manpower.

In an interconnected and increasingly digital economy, policymakers therefore need to carefully balance data protection and productivity.

Any attempts to boost the region's competitive advantage need to take into account the important contribution of free cross-border data flows to South-east Asia's overall economic performance.

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An Internet cafe in Shanghai, China. While calls for increased online data security are legitimate and warranted, restricting the free flow of data can harm the economy that is enforcing it. PHOTO: BLOOMBERG

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