

Introduction

Real-time payments have revolutionized the way money moves in the global economy. In an era defined by rapid technological advancements and increasing consumer demand for convenience and efficiency, real-time payments, also known as instant payments, have become the modern benchmark for financial transactions.

Real-time payments are a type of electronic fund transfer that allows individuals and businesses to move money instantly to and from anywhere in the world, 24/7, without the typical delays associated with other types of transfers. This capability has profound implications for the way people pay for goods and services, settle debts, and manage their finances. Real-time payments are both faster and more secure than traditional bank transfers, reducing the risk of fraud and providing instant confirmation of successful transactions.

At the global level, real-time payment systems have shown substantial growth over the past decade, with many countries establishing their own real-time payment networks and infrastructure. Some notable examples include the Faster Payments Service (FPS) in the United Kingdom, the Unified Payments Interface (UPI) in India, Pix in Brazil, and The Clearing House's RTP® network in the United States. These

systems have altered the financial landscape by facilitating both immediate peer-to-peer (P2P) transfers and real-time settlements in the business-to-business (B2B) domain.

The world of real-time payments is marked by ongoing evolution, with financial institutions (FIs), technology companies and regulatory bodies continuously adapting to the changing landscape. Additionally, cross-border real-time payment networks are emerging, promising to streamline international money transfers.

This map explores the state of real-time payment systems worldwide, highlights the nations leading this space, and offers insights into the anticipated developments in this realm for the years ahead. While it is difficult to predict which countries will be the next to adopt new real-time payment networks, it is evident that the future of real-time payments is poised for continuous innovation, expanded use cases, and a more interconnected global financial ecosystem.







ARGENTINA

Argentina has three different real-time payment schemes: Pago Electrónico Inmediato, which launched in 2016 and is geared toward P2P payments; DEBIN, a real-time direct debit system that debuted in 2017; and Transferencias 3.0, which is backed by the central bank and relies on QR codes.



57M

Number of transactions (2022)



404M

Projected number of transactions (2027)



48%

5-year compound annual growth rate (CAGR)

AUSTRALIA

Australia launched its real-time payments scheme in 2018, with 90 million account holders across 110 FIs taking part currently. This payments system has had a slow start, however, comprising just 6.2% of the total payments volume last year.



1.3B

Number of transactions (2022)



2.7B

Projected number of transactions (2027)



16% 5-year CAGR

AUSTRIA

Austria was one of the first participants in SCT Inst. The country hit 401 participating FIs and payment providers by 2022, the second-highest in Europe behind Germany.



Number of transactions (2022)



805M

Projected number of transactions (2027)



5-year CAGR

BAHRAIN

Bahrain's real-time payments scheme, Fawri+, has one of the highest real-time payments shares by volume of any country in the world, at 46%. The system originally launched in 2015 and now accounts for half of all electronic payments in the country.



276M

Number of transactions (2022)



1.3B

Projected number of transactions (2027)



36%

5-year CAGR

BELGIUM

Belgium joined the EU's SEPA Instant Credit Transfer (SCT Inst) real-time payments platform in March 2019 but has seen limited real-time payments adoption since, at just 2.3% of the country's total payments volume. Experts project this percentage will quickly rise in the near future, however.



177M

Number of transactions (2022)



1.3B

Projected number of transactions (2027)



50%

THE **REAL-TIME PAYMENTS** MAP PYMNTS Intelligence The Clearing House



BRAZIL

Brazil's real-time payments have been a notable success since the launch of Pix in 2018. Studies have found that by 2026, Brazil's gross domestic product will have the highest share of growth facilitated by real-time payments among the major global economies. Real-time payments comprised 16.1% of its total payments volume in 2022.



29B

Number of transactions (2022)



111B

Projected number of transactions (2027)



5-year CAGR

CHILE

Chile remains a largely cash-dominated economy despite the launch of its real-time payments scheme in 2008, but digital transactions are making fast progress. The country plans to accelerate real-time payments volume by decentralizing the digital payments network to boost competition.



986M

Number of transactions (2022)



1.7B

Projected number of transactions (2027)



5-year CAGR

China's real-time payments network is the third largest in the world in terms of total transaction volume, driven in part by its serving the most populous country in the world. Experts predict significant volume growth in the coming years, however, thanks to China's high level of mobile wallet adoption.



18B

Number of transactions (2022)



29B

Projected number of transactions (2027)



11% 5-year CAGR

Colombia currently has a relatively low real-time payments volume, attributable in part to lower participation by its FIs and its large unbanked population. Real-time payments account for just 0.1% of the country's payments volume, but the planned addition of B2B and QR payments promises a robust outlook for its real-time payments future.



15M

Number of transactions (2022)



99M

Projected number of transactions (2027)



5-year CAGR

CROATIA

Croatia is a real-time payments newcomer, having launched its system in late 2020, but its real-time volume as a percentage of total transactions is climbing fast. Experts project that real-time payments could comprise 5.4% of all electronic payments in the country by 2027, owing in large part to lifestyle changes spurred by the COVID-19 pandemic.



0.5M

Number of transactions (2022)

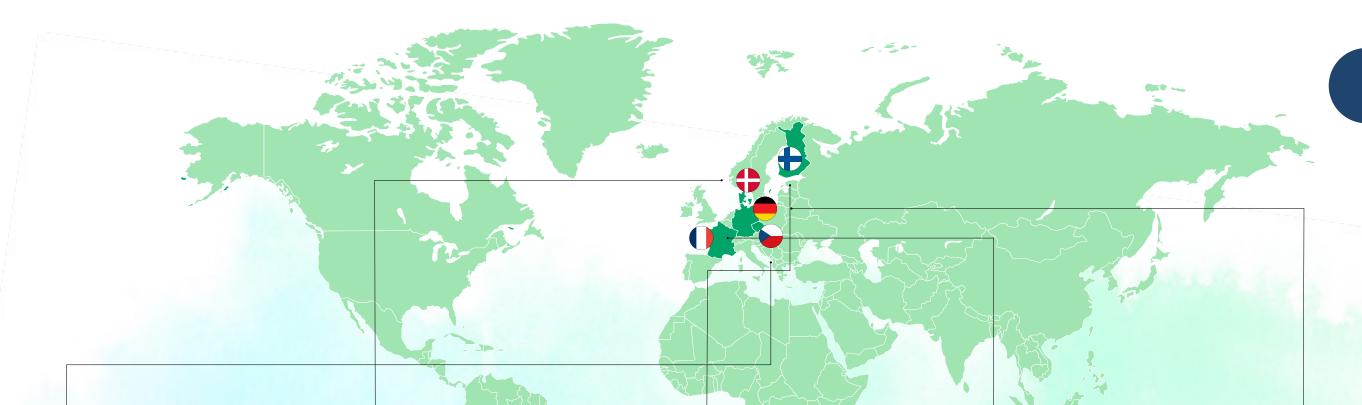


159M

Projected number of transactions (2027)



5-year CAGF



PYMNTS INTELLIGEN



CZECH REPUBLIC

The Czech Republic's real-time payments journey began in 2018 with the launch of the Czech Express Real-Time Interbank Gross Settlement (CERTIS). Growth has been gradual since the launch, but real-time payments made up 3.3% of the country's payment transaction volume in 2022.



189M

Number of transactions (2022)



634M

Projected number of transactions (2027)



DENMARK

Denmark's journey toward a cashless society is progressing much more rapidly than that of much of the world, a trend shared with fellow Scandinavian countries. Real-time payments saw a substantial bump during the height of the pandemic, but most consumers have returned to the card payments they favored before it began.



520M

Number of transactions (2022)



937M

Projected number of transactions (2027)



5-year CAGR

FINLAND

Finns enjoy two different real-time payment schemes: Siirto, a domestic system that launched in 2017, and the pan-European SCT Inst, which launched in 2018. The country's mobile commerce usage is currently one of the lowest in the region, but a large growth opportunity exists if it follows the trends of neighboring countries.



Number of transactions (2022)



877M

Projected number of transactions (2027)



5-year CAGR

FRANCE

France's real-time payments opportunity remains largely untapped, but experts predict that growth in this sector could add 2.8% to the GDP over the next five years. France adopted SCT Inst in 2018, but the country does not have a domestic real-time payments network.



202M

Number of transactions (2022)



1.4B

Projected number of transactions (2027)



5-year CAGR

GERMANY

Germany leads the rest of the European Union in real-time payment transaction participants, but it has far to go before these payments become an everyday means of transacting. Nevertheless, a penchant for bank transfers and a traditionally cash-dependent consumer base may make it likelier to shift to real-time payments than countries that are more card-dependent.



1.1B

Number of transactions (2022)



2.7B

Projected number of transactions (2027)





GREECE

Greece's real-time payments journey began in 2017 with the launch of its IRIS Online Payment system. The system has since added several new features, including mobile payments and QR code compatibility.



120M

Number of transactions (2022)



410M

Projected number of transactions (2027)



28%

5-year CAGR

HONG KONG

Hong Kong launched its Faster Payment System scheme in 2018, which has since helped to unlock \$338 million of economic output, representing 0.09% of the country's GDP (2021). Experts note that its economic benefits remain largely untapped, as real-time payments could add 2.4% to the country's GDP by 2026.



Number of transactions (2022)



1.2B

Projected number of transactions (2027)



5-year CAGR

HUNGARY

Hungary's real-time payments scheme, Azonnali fizetési rendszer (AFR), has currently unlocked \$153 million of additional economic output, according to experts. This system could potentially increase the country's overall GDP by 0.19% by 2026 if current trends hold.



222M

Number of transactions (2022)



504M

Projected number of transactions (2027)



5-year CAGR

INDIA

India currently records more real-time transactions than any other country in the world, thanks to both its massive population and its high level of digital literacy. Experts predict that real-time payments' share of total payments volume will increase to more than 67% by 2027.



89B

Number of transactions (2022)



235B

Projected number of transactions (2027)



5-year CAGR

INDONESIA

Indonesia is a very new real-time payments player, first introducing its BI-FAST real-time payments system in December 2021. By 2026, however, the system could help to generate an additional \$747 million of economic output, or 0.05% of forecasted GDP.



470M

Number of transactions (2022)



9.4B

Projected number of transactions (2027)









ITALY

Italy's real-time payments journey began in 2017, when it adopted the early stage of the pan-European SCT INST scheme. Although it had a running start compared to its many European counterparts that adopted the system later on, Italy's population has been relatively slow to adopt real-time payments en masse.



364M

Number of transactions (2022)



787M

Projected number of transactions (2027)



5-year CAGR

JAPAN

Japan boasts the world's oldest real-time payments system, which was first introduced in 1973. The Zengin scheme is still relatively obscure compared to the realtime schemes elsewhere in Asia, making up just 3.1% of Japan's total payments volume.



1.8B

Number of transactions (2022)



1.9B

Projected number of transactions (2027)



1%

5-year CAGR

KENYA

Kenya's PesaLink real-time payments scheme first launched in 2017 and is compatible with Kenya shillings as well as several different European and North American currencies. Real-time payments comprise just 0.1% of the country's total transaction volume, however.



12M

Number of transactions (2022)



58M

Projected number of transactions (2027)



5-year CAGR

MALAYSIA

Malaysia's DuitNow scheme was introduced in 2018, but Malaysian consumers have been slow to capitalize. Real-time payments account for just 6.7% of the country's total transaction volume, as opposed to paper payments' 72%.



1.6B

Number of transactions (2022)



3.9B

Projected number of transactions (2027)



5-year CAGR

MEXICO

Mexico was early to the real-time payments scene, introducing its Sistema de Pagos Electrónicos Interbancarios (SPEI) scheme in 2004. The country still has a high share of unbanked households, however, which has limited the spread of real-time payments among the populace.



2.7B

Average daily volume (2021)

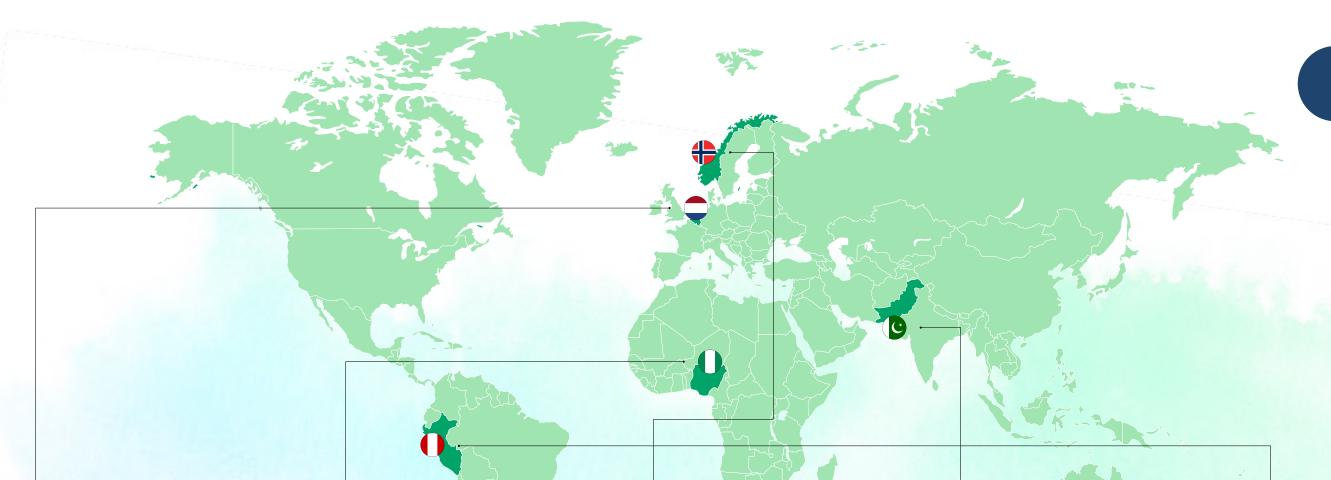


5B

Projected number of transactions (2027)



13%







NETHERLANDS

The Netherlands joined the pan-European Union SCT Inst payment scheme when it launched in 2017, enabling instant payments between any members of the Eurozone. Real-time adoption continues to lag behind legacy options, however, which comprise more than 80% of the total payments volume.



1.1B

Number of transactions (2022)



4B

Projected number of transactions (2027)



5-year CAGR

NIGERIA

Nigeria launched its NIBSS real-time payments scheme, which all of the country's commercial banks and mobile money operators currently support, in 2011. The system has spread like wildfire since its introduction, making up 61% of the country's total spend in 2022.



5.1B

Number of transactions (2022)



8.9B

Projected number of transactions (2027)



5-year CAGR

NORWAY

Electronic payments dominate the Norwegian market, but real-time transactions have been much slower to catch on. The country's largest payment app, Vipps, is currently in the process of merging with MobilePay to allow Norwegians to transact in real time with Denmark and Finland.



224M

Number of transactions (2022)



713M

Projected number of transactions (2027)



5-year CAGR

PAKISTAN

Pakistan's Raast instant payment scheme launched in January 2021, with functionalities being rolled out in gradual phases. The system currently supports only bulk transfers, such as salaries and dividend payments.



68M

Number of transactions (2022)



1.5B

Projected number of transactions (2027)



86%

5-year CAGR

PERU

Peru's Immediate Interbank Transfers scheme launched in 2016, but proliferation has been slow due to the country's large proportion of unbanked households. Realtime payments accounted for just 0.3% of total transaction volume last year.



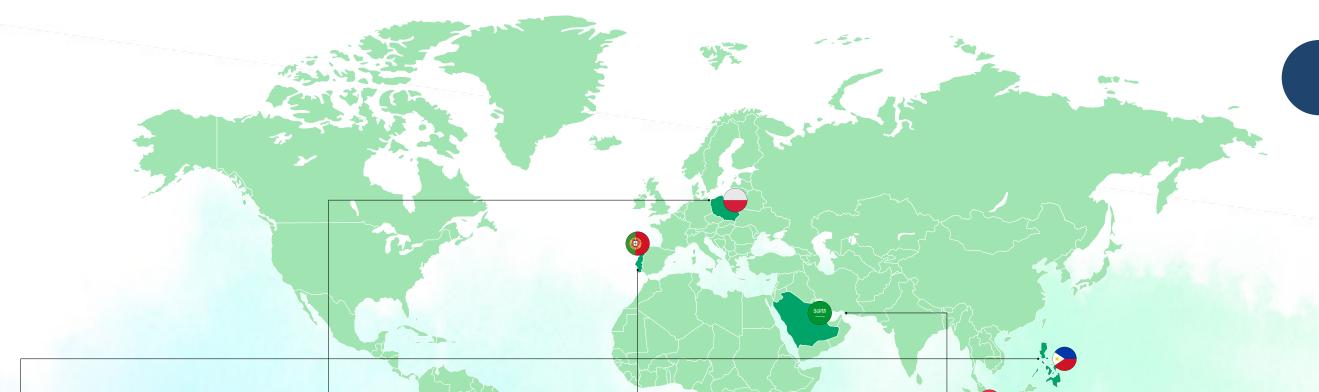
107M

Number of transactions (2022)



Projected number of transactions (2027)









PHILIPPINES

The Philippines launched its InstaPay scheme in 2018 but has been slow to catch on. Paper-based transactions comprise 98% of payments volume in the country, while real-time options comprise just 0.7%. However, the country's geography gives it tremendous potential for real-time payments to enable rapid transactions between communities separated by water.



625M

Number of transactions (2022)



1.5B

Projected number of transactions (2027)



5-year CAGR

POLAND

Poland was an early adopter of real-time payments in Europe, introducing two different schemes in 2012. While Polish consumers are widespread users of electronic payments like cards or P2P apps, real-time options comprise just 1.2% of total payments volume.



257M

Number of transactions (2022)



794M

Projected number of transactions (2027)



5-year CAGR

PORTUGAL

Portugal has leveraged the pan-EU SCT Inst system since 2018 but has no domestically produced real-time payment system. Adoption rates of SCT Inst are still low but are projected to increase significantly in the coming years.



10M

Number of transactions (2022)



78M

Projected number of transactions (2027)



5-year CAGR

SAUDI ARABIA

Saudi Arabia launched the Sarie real-time payments scheme in 2021, and the government has aggressively pushed widespread adoption since its inception. While usage remained low in 2022, experts predict that the lingering economic aftereffects of the pandemic will accelerate its usage in the future.



352M

Number of transactions (2022)



1.2B

Projected number of transactions (2027)



26%

5-year CAGR

SINGAPORE

Singapore boasts two different realtime schemes: FAST, launched in 2014, and Pay-Now, launched in 2017. While real-time options are currently the third-most popular method in the city-state after electronic payments and paper payments, experts predict real-time rails will be the dominant transaction method by 2027.



Number of transactions (2022)



656M

Projected number of transactions (2027)









SOUTH KOREA

South Korea's CD/ATM scheme is the second-oldest real-time payment system in the world after Japan's. It originally launched in 1988 and currently ranks fifth in the world in terms in transaction volume.



8.1B

Number of transactions (2022)



12B

Projected number of transactions (2027)



5-year CAGR

SPAIN

Spain launched the Bizum system in 2016 and joined the pan-EU SCT Inst system in 2017. The latter is currently far more popular, with 90 FIs participating (as opposed to Bizum's 32).



643M

Number of transactions (2022)



2.4B

Projected number of transactions (2027)



30%

5-year CAGR

SRI LANKA

Sri Lanka launched the Common Electronic Fund Transfer Switch (CEFTS) in 2015, but the scheme's low initial usage numbers led to a slow start. The increasing popularity of mobile wallets and other digital transactions has led to rapid growth over the past few years, however.



94M

Number of transactions (2022)



291M

Projected number of transactions (2027)



5-year CAGR

SWEDEN

Sweden launched its BIR payment scheme in 2012, which now accounts for a 14% share of total payments volume. The scheme is currently more popular than paper payments in the country, but it still trails non-real-time electronic payments in usage.



982M

Number of transactions (2022)



2B

Projected number of transactions (2027)



16%

5-year CAGR



5-year CAGR

596M

SOUTH AFRICA

South Africa was a real-time payments pioneer, launching its Real-Time Clearing

system in 2006. However, high fees, limited

customer awareness and a high unbanked

population have hampered the payment

method's local popularity.

Projected number of transactions (2027)

Number of transactions (2022)





SWITZERLAND

Switzerland plans to launch a new real-time payments scheme, SIC5, next year, complementing its existing TWINT system, in service since 2016. All FIs are expected to switch to SIC5 by the end of 2026.



Number of transactions (2022)



1.4B

Projected number of transactions (2027)



5-year CAGR



13% 5-year CAGR

TAIWAN

Taiwan was one of the first countries to implement real-time payments with the the interbank ATM funds transfer system in 1987. This system was supplemented by the Financial XML scheme in 2003, which focused on interbank transfers between businesses.



570M

Number of transactions (2022)



1.1B

Projected number of transactions (2027)



THAILAND

Thailand introduced its PromptPay scheme in 2016, and it has now become prevalent among Thai consumers. Real-time payments accounted for a 34% of total volume last year, making it the second most popular transaction method after paper payments.



17B

Number of transactions (2022)



32B

Projected number of transactions (2027)



5-year CAGR

TURKEY

Turkey's Retail Payment System launched in 2012, supporting P2P, C2B and B2B transfers. The country implemented the FAST system in 2021 to accelerate the spread of real-time payments.



2.3B

Number of transactions (2022)



6.1B

Projected number of transactions (2027)



5-year CAGR

UNITED ARAB EMIRATES

The UAE's Immediate Payment Instruction system was introduced in 2019 but has been slow to catch on. Despite being available at more than 70 FIs across the country, real-time transactions account for just 1.1% of total payments volume.



Number of transactions (2022)



146M

Projected number of transactions (2027)





European Union

THE REAL-TIME PAYMENTS MAP

13B

Number of transactions (2022)

34B

Projected number of transactions (2027)

21%

5-year CAGR

Europe has long been a hotbed for payments innovation, with recent years seeing a shift from cash, debit and credit cards to technologies like buy now, pay later (BNPL) solutions, digital wallets and account-to-account payments. While many European countries have developed their own domestic real-time payment schemes, the continent's first multinational real-time effort began in 2017 with the launch of the Single Euro Payments Area (SEPA) Instant Credit Transfer scheme. While this system was intended to standardize and popularize real-time payments across Europe, it has been plagued by problems since its inception.

One of the biggest issues with the system, according to experts, is the absence of a legally binding obligation for banks to offer real-time payment services. Payers initiating a real-time transaction may end up with a conventional bank transfer if the receiving bank is not enrolled in the SEPA system, for example. One study found that in Q1 2022, instant transactions accounted for less than 12% of all SEPA credit payments.

The European Commission has been exploring ways to make instant payments more widespread across the continent. In 2022, the European Commission published a proposal mandating that banks and other payment service providers offer 24/7 instant euro payment services without additional fees. Once the policy is enacted, payments companies will have six months to begin accepting instant payments and one year to commence sending them.

In addition, the EU is currently exploring revisions of its Payment Services Directive (PSD2) for a future iteration, aptly titled PSD3. Among other changes, regulators plan to add a single application programming interface (API) standard to the new directive to allow easier access for third-party payment providers to implement real-time payments for their customers.



United Kingdom

4B
Number of transactions (2022)

6.1B
Projected number of transactions (2027)

9.1%
5-year CAGR



PAYMENTS MAP

THE **REAL-TIME**

PYMNTS NTELLIGENCE



The United Kingdom entered the real-time payments scene with the launch of the Faster Payments Service (FPS) in 2008, which aimed to reduce bank transfers from the usual three business days to just a few seconds. While it was a pioneer in the real-time payments space at the time, it is showing its age in comparison to its peers. For example, FPS transactions must be processed through a payments gateway, which requires an intermediary orchestrator that charges banks for its service.

The U.K. is currently modernizing its payments infrastructure with a new ISO 20022-compliant architecture in a scheme called the New Payment Architecture (NPA). ISO 20022 compliance allows for far easier interoperability between different payments systems, and it is now the world standard for real-time payments transactions. It will soon be leveraged by the RTP® network.

The U.K. anticipates that real-time payments will overtake cash transactions in the country by 2027, reaching a nearly 13% share of total payments volume. Even so, the volume will still be considerably less than electronic payment methods like credit cards, which are expected to comprise roughly 79% of the total spend.



United States

2.8B

Number of transactions (2022)

11B

Projected number of transactions (2027)

33%

5-year CAGR

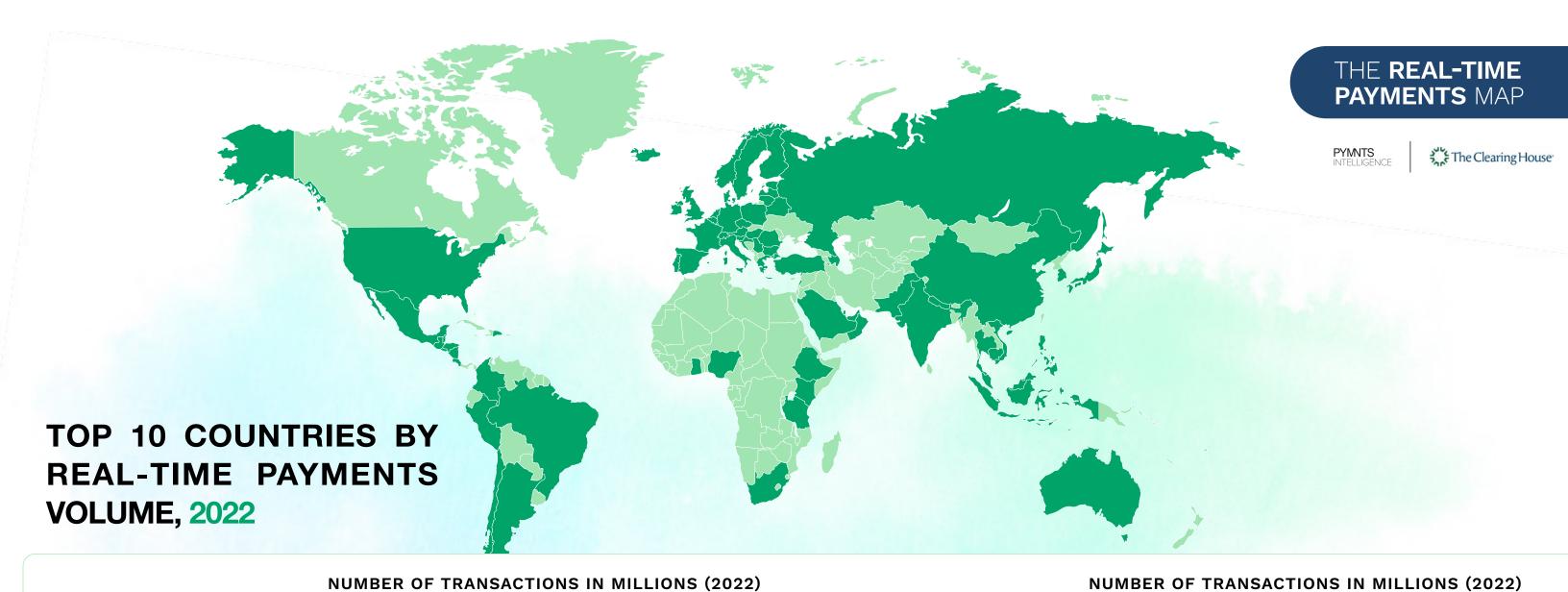


The United States has fallen behind most of the industrialized world in adopting real-time payments, largely due to the absence of unifying governmental efforts to establish such a system until recently. The nation's first big step into the real-time payments scene came in 2017, when The Clearing House (TCH) launched the RTP® network. The program, which was initiated in response to the Federal Reserve's push for improved payments efficiency, has proven to be a resounding success in the years since — although its growth took time to materialize.

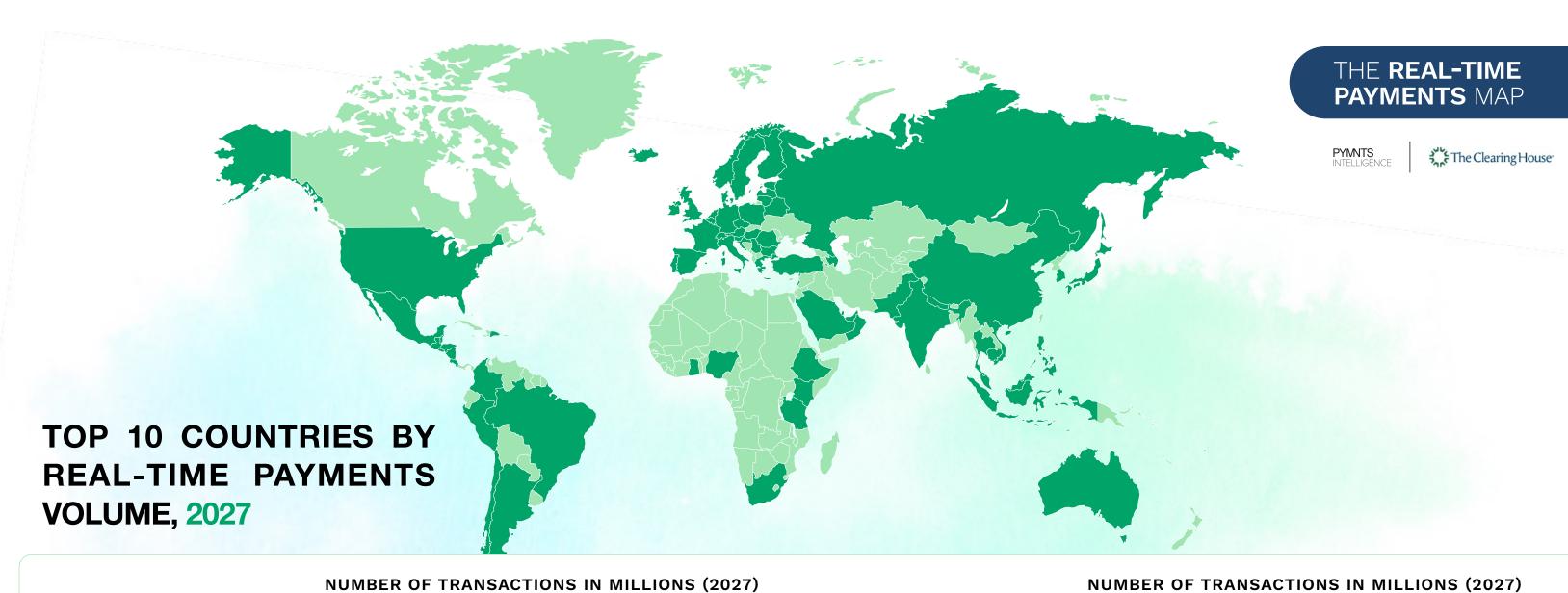
At first, RTP network adoption was slow, but the pandemic's social distancing and stay-at-home orders compelled businesses to seek out remote payment options that were as fast and as easy as paying with cash or cards. Currently, 81% of corporate decision-makers surveyed in a recent study say real-time payments will dramatically transform the way they conduct their day-to-day business, and 66% expect that real-time payments will eventually supplant paper checks and cash entirely. The RTP network marked a significant milestone in July by reaching 500 million payments.

While the RTP network primarily caters to B2B transactions, individuals in the U.S. tend to prefer the P2P app Zelle for instant payments. The system recorded 639 million transactions in Q1 2023, totaling \$180 billion across the 1,900 FIs that have implemented the app into their systems.

Another major real-time payments push occurred earlier this year with the launch of FedNow, a service from the U.S. Federal Reserve. This marks the first truly nationwide payment infrastructure in 40 years. So far, 35 banks and credit unions have integrated the system at launch, with nearly 100 more intending to join in the coming months. It remains to be seen how the new service will shake up the U.S. real-time payments scene.



1.	INDIA	89,000	6.	NIGERIA	5,100
2.	BRAZIL	29,200	7.	UNITED KINGDOM	4,000
3.	THAILAND	17,600	8.	UNITED STATES	2,800
4.	CHINA	16,500	9.	MEXICO	2,700
5.	SOUTH KOREA	8,100	10.	TURKEY	2,300



NUMBER OF TRANSACTIONS IN MILLIONS (2027) UNITED STATES INDIA 235,000 11,400 BRAZIL INDONESIA 111,200 9,400 NIGERIA THAILAND 31,800 8,900 TURKEY CHINA 6,100 29,100 UNITED KINGDOM SOUTH KOREA 12,100 6,100

NORTH AMERICA _

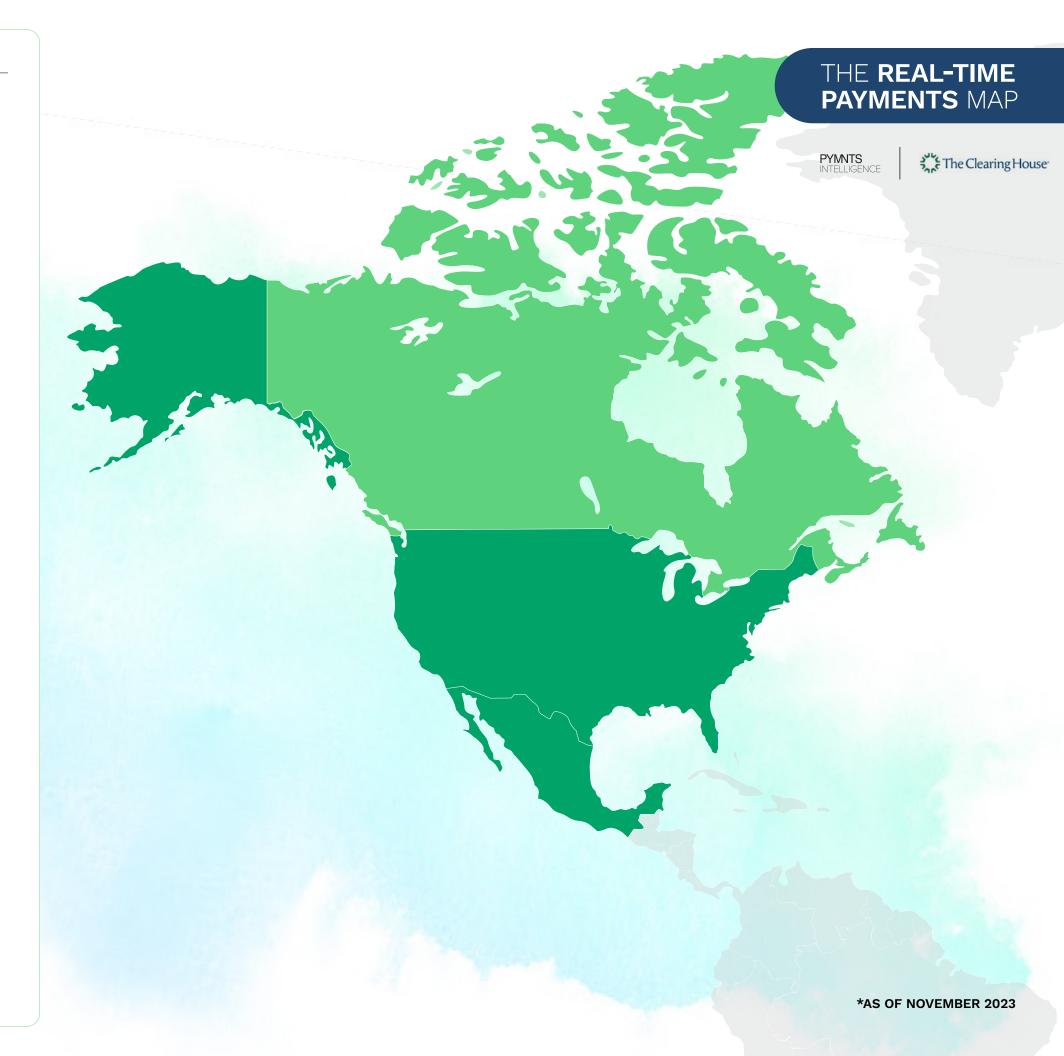
LIVE





EXPECTED 2023





SOUTH AMERICA

LIVE



ARGENTINA

2016



EL SALVADOR

2010



ARUBA 2020



DOMINICAN REPUBLIC 2006



BELIZE 2016



GUATEMALA

2011



BRAZIL 2002



HONDURAS

2008



NICARAGUA

2016



COLOMBIA 2019



PERU 2016











EUROPE

LIVE





























































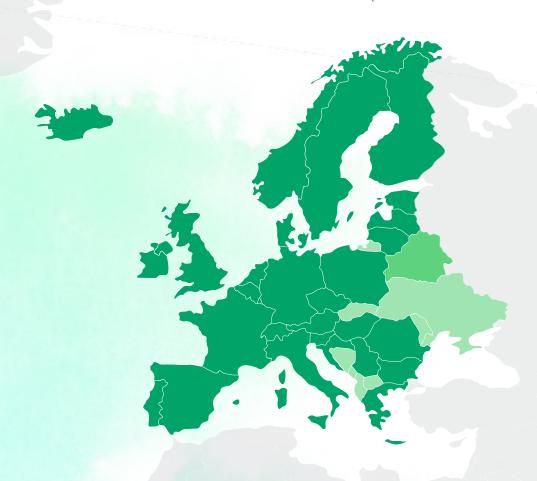


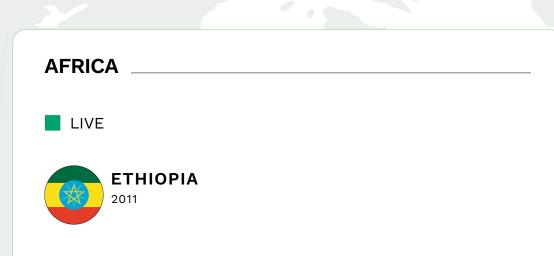


THE **REAL-TIME PAYMENTS** MAP











GHANA







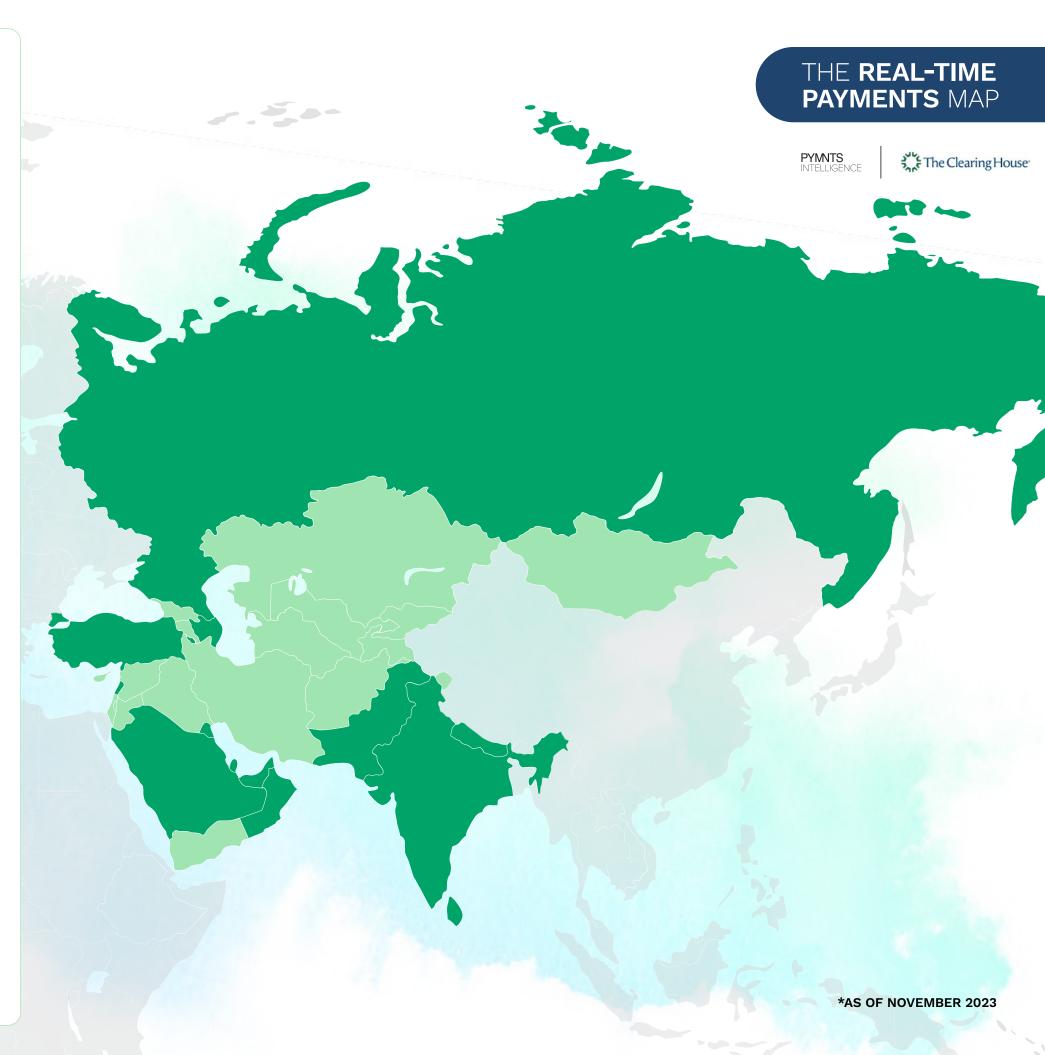
THE **REAL-TIME PAYMENTS** MAP











ASIA-PACIFIC LIVE **AUSTRALIA PHILIPPINES** 2018 2018



BRUNEI



SINGAPORE 2014



CAMBODIA



* SOUTH KOREA





TAIWAN 1987



HONG KONG



THAILAND 2016



JAPAN



VIETNAM 2016





INDONESIA

2021

