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REAL-TIME PAYMENTS IN THE US:

Speeding Up or Slowing Down?

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INTRODUCTION

In many parts of the world, real-time payments are part and parcel of daily life, and have been for many years. More than 50 countries have systems, with some more than 40 years old and many processing in excess of 1 billion transactions a year. Yet one country stands out. Of the largest 15 countries ranked by GDP, the US is alone in not having significant volumes of real-time payments.

What is a real-time payment?

Celent has been covering real-time payments for a decade. One regular question has been how we define a real-time payment, as many perceive other systems to be real-time.

We define it in detail in our 2014 report "Real-time Payments: Dispelling the Myths," but in short it is a retail payment from one account to another account posted and confirmed to the sending bank in a "Real-Time" experience.

In particular, we also highlight that it is an open network, in a single message, and the recipient gets use of the funds within seconds of it being sent.

The road to real-time payments in the US has been slow and rocky. The author of this report was the first ever person to present on the topic at Nacha Payments in 2008, where it was well received but met with perhaps what is best described as bemusement. As recently as 2012, audiences remained unconvinced—indeed, a senior banker stood up and stated that it would never happen in their working lifetime.

At the same time, many consider the US to have some of the most efficient payment systems globally, processing significant volumes of ACH and Wire transactions. A 2016 report published by the Federal Reserve stated that there were over 140 billion non-cash retail payments per annum, with a value of over $175 trillion, and at some of the lowest cost-per-transaction price points seen globally.

Yet that does not tell the whole story.

While efficiency might be considered paramount given the volumes concerned, many others were seeing the shortcomings of the focus on efficiency. Many have highlighted that while leading edge when it was first introduced, other countries have advanced significantly further in terms of features and functions.

Equally, the more successful a system becomes, the harder it becomes to change. Payment types are often referred to as payment rails. Imagine then replacing *all* the train rails in the US with something twice as wide—and of course, it would not just be the rails but the tunnels, bridges, stations, trains, etc. As an analogy, it probably isn't dramatically different in terms of effort, especially for replacing ACH.

At some point though, there becomes a point at which tough choices have to be made. For example, in 2019, Harsh Sinha, the CTO of TransferWise, gave testimony to the House Financial Services Committee highlighting many issues, including those created by efficiency.

Archaic financial infrastructure has implications that extend beyond the everyday consumer. It's barring the US from participating in a worldwide payment revolution through which money can move instantly, at any hour, anywhere.

Harsh Sinha, CTO, TransferWise

He also noted the somewhat ironic position that the US finds itself in—a nation that is home to the technology companies that have reshaped modern society, but when it comes to banking technology, eclipsed by almost every other major economy.

Perhaps most telling is that this damning indictment comes after both the launch of Same Day ACH, and RTP, the real-time payment solution from The Clearing House. Indeed, efforts date even earlier. Research by the Federal Reserve Bank in 2014 stated that both business and consumers expect payments to clear within an hour. The same research found that delayed payments caused societal issues, impacting those with the least financial security, forcing them to rely on credit, fall behind on payments, or pay late fees.

The Federal Reserve concluded that increasing the pace of payments in the US would, based on experience from those countries that have already adopted faster payments, improve financial inclusion, reduce fees, and increase the range of access points to capital. Those nations at the vanguard of faster payment adoption have witnessed citizens benefit from their investment in a real-time payments architecture.

The report is unambiguous:

> *"Implementation of these new faster payment solutions presents a once-in-a-generation opportunity for all participants to embrace the latest best practices and security features in a comprehensive holistic manner. The payment system is critical to the economic vitality and competitiveness of the United States and must continually evolve to meet the needs of an economy that is becoming more global, digitally interconnected, real-time and information driven."*

So why are we still discussing this in 2021?

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THE JOURNEY TO REAL-TIME

The US has taken a long, torturous journey to real-time payments compared to many other countries—but with (some) good reason. As a large, established market, there are longstanding structures in place that makes any change difficult unless very determined. While the story may be well known, it's important to understand how the industry has ended up where it is today as it provides clues on how to move forward.

Unique Is Not Always Good

Compared to many other countries, the US has a number of unique aspects that have perhaps hampered plans to modernize their payment systems. One that is frequently stated as the largest single barrier is the scale—a large country with a large, diverse economy and numerous banks. However, this is simply not the case: China has implemented real-time payments, and India implemented *two* systems (among many other payment systems).

Three key features of the US market have certainly made the process more challenging.

First, there is no payments regulator. As one European banker succinctly put it, there is no better way to drive adoption than to mandate it! The Federal Reserve wears many hats, but it does not have the power to make banks adopt a new payment system, nor does any other body in the US.

Second, there is no one strategic payments body to drive adoption. While there are bodies such as Nacha for standards in individual payment types, there isn't a single body that has a strategic view across *all* payment types—including at a government level—nor what the industry should strive for. There are multiple organizations who have a strategic view over payments, but these are generally by payment type and/or often by size or type of bank. The issue isn't a lack of opinions about future directions, but that there are no forums to hear them all, let alone reach consensus.

Third, one of the largest differences is the competitive nature of payment processing. This isn't in itself unusual. For example, the European Payments Council sets the rules for SEPA payment types and coordinates future pan-European initiatives, and dozens of payment processors utilize those rules. For ACH payments in the US, this was true at first and there were a number of ACHs across the country. At that time, the Federal Reserve processed regionally on 12 separate platforms. Three platforms—AZCH, EPN, and Visa ACH—worked on interoperability to be able to offer services on a national basis. In 1996, the Federal Reserve consolidated its payments systems onto one platform, and 1999

started an aggressive price-cutting campaign. The net effect was that in October 2002, AZCH closed its doors, followed in March 2003 by the Visa ACH, leaving just the Federal Reserve and EPN, owned by The Clearing House.

Competition remains high between the two for a small group of banks, but many others would claim the choice is low. For many smaller banks, The Clearing House is not considered a choice because it is owned by 24 of the biggest banks in the US, and who are perceived as the biggest threats to those smaller banks.

First Steps Towards Real-Time

The route that the US took to get to real-time payments is long, complex, and worthy of an entire report on its own! This shortened version highlights how the US got to where it is, but more importantly sets out the perceived current situation and the reality.

While the Federal Reserve can't mandate the adoption of anything, as an organization they do have a mandate to ensure "integrity, efficiency, and access to the payments system." As a consequence, in 2014 the Federal Reserve commissioned a study of the domestic payments landscape with a scope to identify unmet needs. This study discovered that 29 billion transactions—accounting for 12% of annual transactions—would benefit from faster authorization, clearing, and settlement. In particular, the report noted that person-to-person payments, person-to-business payments, business-to-person payments, and business-to-business payments would benefit from a faster payments system:

> *"A fast, safe, ubiquitous payment system could benefit society in the long run by improving payment system efficiency, providing a safe framework for payments and promoting global competitiveness and interoperability."*

Following the 2014 study, a task force was formed to decide how the US would develop and deploy faster payments. The implementation was expected to be a "multi-year" program.

In 2016, proposals for faster payment solutions were requested, with 23 proposals received that met the Effectiveness Criteria that had been set out. (There were at least a dozen proposals more who decided not to engage with the process for a variety of reasons). The criteria focused on six benefits: ubiquity, efficiency, safety and security, and legal and governance. The analysis by the Task Force found the proposals met the speed criteria for clearing funds and visibility; the majority improved efficiency for users and supported a wide variety of access options for individuals and organizations.

The task force did find concerns about security and noted "many proposals provide only limited detail on risks related to settlement, dispute, and fraud resolution processes, fraud information sharing, and business continuity." However, the task force also reported that all the organizations making submissions "demonstrated a willingness to respond to feedback and refine their solutions."

TIMING IS EVERYTHING

Hard work doesn't always pay off—sometimes timing is the difference between success and failure. Even the most successful of businesses might have failed if their timing had been off, whether due to a change in sentiment, technology, or many other variables. While it may have seemed that real-time payments were slow off the mark, in hindsight perhaps the timing was perfect.

"On the B of Bang"

British sprinter Linford Christie is probably best known for winning a gold medal at the 1984 Olympic games in the Men's 100 meter sprint. When later asked about his achievement, he said something that was both simple and profound. He said the most important part of the race was getting the timing right at the start. Go too early, and you could be disqualified; go too late, and the race may be lost before it's begun. The optimum time then was to go on the "b of bang," anticipating the exact moment to explode from the blocks.

To stretch the analogy, in 2014 the Federal Reserve was perhaps limbering up and planning for a race. It had commissioned research that showed the potential benefits, and as a consequence began outlining next steps. These included the creation of a Faster Payments Task Force in 2015, who would create a set of requirements and then plan to evaluate potential solutions that could achieve this. This "beauty parade" took place in 2016, and by the end of the year saw over 30 firms submit proposals, with 23 presenting to the Task Force itself.

While the Federal Reserve was busy, so was The Clearing House. On October 22, 2014, they announced that they were planning to launch their own real-time payments network, now known as RTP. It may just be a coincidence (but very unlikely), that not one of the solutions submitted to the Task Force is operational today.

As can be imagined, this was met with mixed feelings by the market. On one hand, many welcomed the fact that there was going to be something tangible, and in a much shorter timeframe. Indeed, by the time the Federal Reserve had proposed to finish reviewing the options and start exploring how to move forward, The Clearing House was saying that its solution would be live. As the biggest users of payments, many also felt that the burden of paying for the new infrastructure should lie with those who would use it most.

On the other hand, some felt that it undermined the Federal Reserve's process, with many feeling that the big banks had effectively chosen the path forward. That in turn created reluctance among smaller banks to consider RTP for real-time payments, as they felt they would be "lining the pocket" of their biggest

rivals, and perhaps somehow those banks would somehow gain advantage over them.

The Fed Steps In. Sort of.

It felt almost inevitable then that the Federal Reserve would announce its own solution, which they did publicly in August 2019. Privately, many in the industry had been aware of plans long before that date. Most welcomed the new system, labeled FedNow, with its plan to launch in 2023, especially among the smaller banks. However, it also created some issues.

First, many small banks seem to have simply put off deciding whether to do real-time payments until FedNow is ready, effectively slowing the potential growth of the market. Second, given the rivalry, the Federal Reserve has held its cards close to its chest, in stark contrast to the process that preceded it. Third, in its initial announcement, the Federal Reserve said that “interoperability was not an initial objective,” and not that it “might be difficult to achieve.”

Returning to the first point—until the Federal Reserve does prioritize interoperability, why would any of those smaller banks want to join FedNow? Who will they send payments to or receive payments from? This is the reason for telling the story again. For banks, it should be a reach question (that is, which banks can they send money to or receive money from) for their *customers*, not a political question for them. Celent would argue strongly that the Federal Reserve’s role as ensuring access and for financial stability alone means its position is unsustainable.

NOT IF. NOT WHEN. NOW.

One thing that sometime seems to have gotten lost is the customer. No-one wakes up in the morning with a burning desire to make a payment. Instead, it's driven by a need—to pay a bill, to pay a salary, to send money to a child away at college. Understanding the "why" a payment is being made (or received) and the "who" is key. There are two broad rules that highlight why banks should be starting their journey to real-time now.

Follow the Money

There are always exceptions to every rule, especially in banking, and even more so between countries. But the rules are generally sufficiently true. Many banks believe the biggest opportunity for real-time payments is for P2P payments, and cite the success of CashApp, Venmo, and Zelle. Yet those systems are neither real-time systems nor P2P systems. They are often used to collect payments from a group of friends to pay a bill, such as for rent. In truth, though, the landlord is a business. Indeed, many of the cited P2P use cases are usually relatively rare or to a small business. Analysis of UK non-cash payment volumes suggests that only 6% of all payments fall into that group. Instead, while consumers either make or receive 80% of all transactions, 74% of the total go to or from a business. This makes sense when you think about it—we all shop and have bills, and most people get a salary or pension payment.

Furthermore, consumers rarely pay to make or receive a payment – Wires being a notable exception. Businesses, however, virtually always pay. Why then build a business plan on a share of 6% of volume where people don't pay than those who do?

The 1% Rule of Payments and Why It Matters

The 1% Rule describes a phenomenon first identified in online communities. This broad rule of thumb observes that, in a community of 100 members, one person will create the content, 10 others will interact with it, and the remaining 89 will just "consume" it. That is, it only requires a critical mass of the 1%, rather than 100%. One prime example of the 1% Rule is the success of YouTube. Only 1% of users upload videos, while 10% actively interact with them, generating the ratings around specific content that attracts the remaining 89%. By gaining critical mass in the 1%, YouTube has grown into a worldwide phenomenon.

The same rule of thumb can be (broadly) applied to payments.

Nacha publishes volume analysis every year, including volumes for sending and receiving ACH transactions for the largest 50 banks. While less than 1% (it is nearer 0.5% of the total number of banks), figures show that in 2020 those 50 banks accounted for 86% of all originated volumes and 61% of all received volumes.

The Clearing House is owned by 24 of the largest banks operating in the US. It should then come as no surprise that they dominate the Nacha Top 50 list, as shown in Table 1. Indeed, they accounted for 75% of originations and 52% of receipts, and that excludes "on us" transactions. Consequently, The Clearing House ACH system, EPN, carries a conservative estimate of 50% of *all* US ACH traffic. The Clearing House also operates Wire and check systems with at least the same level of market share.

Table 1: The Banks Who Own The Clearing House Dominate the Nacha Top 50

Bank	Originating Bank Rank	Receiving Bank Rank
Bank of the West		28
Bank of America	3	1
Bank of New York Mellon	9	39
Capital One	5	11
Citigroup	4	13
Citizens	18	14
Comerica	22	18
Deutsche Bank	19	
Fifth Third	8	12
HSBC	42	47
Huntington	29	15
J.P. Morgan Chase	2	2
Keycorp	10	16
M&T Bank	28	17
MUFG Union Bank	16	26
PNC	7	4
Regions	12	10
Santander Bank		19
TD Bank	38	8
Truist	13	6
U.S. Bank	6	
Veridian Credit Union	46	
Wells Fargo	1	3

While banks do make payments themselves, the majority of that volume comes from their corporate clients. Again, the 1% rule likely applies—while the number of businesses will be small, their volumes are large. For example, think about large billers like mobile phone or satellite TV companies.

At first glance, smaller banks will say this shows why we need FedNow, as they are worried that those banks will target their clients, and that they don't want to give money to their largest competitors. The sentiment is understandable, yet Celent argues that it shows the opposite. In effect, they are thinking about themselves, and not their clients.

Virtually every customer at a smaller bank will still have at least one bill with one large biller, and possibly someone who might send them money who will bank at a much larger bank. The customer's expectations are not just being set by the smaller bank, but with the other party in the payment as well. As those corporates increasingly start to offer the option for real-time payments, whether as a day-to-day option like in other countries; or as a cheaper, alternative expedited payment; or to receive money faster, then customers will start to wonder why they have been put at a disadvantage. In the short term, this is unlikely to result in customers voting with their feet—real-time payments are still too nascent in the US—but longer term, it will become more likely.

A scan across the 50+ countries that already have real-time payment solutions shows growth and ubiquity is almost inevitable. In 2020, India had 25.5 billion transactions and China had 15.7 billion transactions—just a decade after launching. Indeed, of the largest 20 countries ranked by GDP, the US and Canada are the *only* countries that do not have any meaningful real-time payment volume.

But more importantly, those countries who actively embrace real-time payments have benefited the most from them. India has two real-time payments systems, and coupled with UPI, from 2014 has not only increased financial inclusion from 54% to 81% but also has created one of the most innovative financial services markets in the world.

Smaller banks have an advantage in that they often know their clients better than larger ones, and usually focus on providing the best possible customer service. Yet in putting off real-time payments until FedNow comes and only then deciding, they are missing a chance to be even closer to their clients, and to provide even better solutions.

Furthermore, their analysis reflects a "glass half empty" mindset. When looking for the positive, a very different picture emerges. The non-Clearing House banks have avoided having to pay to build a network that allows access to the largest banks and businesses. The Federal Reserve has decided to enter the market, and if history repeats itself, will do so at a very aggressive price point, reducing the cost across the board. The Clearing House will respond by innovating and creating greater value. Banks are conflating a number of different issues in not considering The Clearing House RTP today. Rather than not paying money to their biggest competitors, they are not serving their customers' best interests.

The bigger question is whether volumes will ever take off. Celent emphatically says yes. The evidence also underlines Celent's advice. While small banks have pushed back on The Clearing House RTP product for being owned by big banks, Zelle now has over 850 active participants and processed over 1.2 billion transaction in 2020. Furthermore, as Zelle offers an app independent of banks, customers of over 7,000 institutions use Zelle, underlying our assertion that customers are actively seeking a real-time solution. COVID-19 has also driven growth, with volume growth year-on-year running at over 60%. Yet the seven banks who own Early Warning (the operator of Zelle) are all The Clearing House owners as well, and many smaller banks use many of Early Warning's other services.

PATH FORWARD

Given the unusual make-up of the US payment market, it should perhaps come as no surprise that take-up has been slow. Yet the future speed of take-up is in the banks' own hands. Furthermore, banks typically benefit most from being a fast follower than being the first. Smaller banks now have that opportunity.

Customer's Expectations Are Increasing

It almost seems strange to need to make this point, but it is important, and has a number of facets. First, customers are actively seeking real-time payment solutions, as the take-up of Zelle and other quasi-solutions like Venmo and CashApp clearly show. Celent research shows that this has accelerated further during COVID-19. Second, it isn't just P2P as some seem to think: consumers go to work and expect at least the same level of choice and sophistication. But more importantly, looking at the flows of payments, the vast majority start or finish with a business, so why preclude them? Third, given that businesses pay to send or receive payments, propositions targeted at them will be central to any successful business plan. (These propositions will be explored in a companion report.) Smaller banks may not have many or even any business customers, but their personal customers still need to send and receive payments from businesses.

FedWire Creates an Opportunity, Not a Priority

While not every bank will (or even should) join, Celent does expect that ultimately banks able to access at least one system will be a number similar to those who use FedWire (~4,500). There is a very long tail of US banks, with the tail composed of many very small banks, so we also expect that while momentum will grow over the next two years, it will be a long journey to even 1,000 banks. The mention of FedWire is not just as a comparator, but to also make the observation that there are many similarities, and in particular that they are single message.

More importantly, the Federal Reserve has committed that the industry will move to ISO 20022 for Wires. COVID-19 has delayed the deadline, but has not (and will not) delay the move. The majority of FedWire solutions in use today have no upgrade path, given that ISO 20022 is so different. Banks will then *have* to replace their FedWire solution with a new solution. Celent thinks banks should use this opportunity to add a real-time payments solution at the same time, to leverage both the synergies and the possibilities created. For example, most Wire transactions from smaller banks are well below the RTP value limit—should a client miss the Wire cut-off time, they could post the payment into the RTP network instead.

Payments Are Speeding Up – and So Has Technology

The Clearing House also engaged early with solution providers, as well as some banks such as BNY Melon who are also offering their products to other banks. At the same time, technology has moved on considerably since RTP launched, with cloud- and SaaS-based payment solutions widely available and used. This is perhaps the game changer for smaller banks. Their cost to entry now has fallen dramatically over the last few years. While clearly not free, the differences are significant enough that business cases today look much better than they did when RTP first launched.

Don't Delay, Today's the Day

There are many instances where being first to market has its advantages. This certainly applies to the creation of The Clearing House RTP, for example, where it can be assumed that they deterred many of the other solutions from even trying to launch. But for building markets and up-take, first is not always best. A degree of critical mass and momentum is needed to create not just demand but also a market for the enabling technology. The Clearing House banks have led the way, with now over 100 banks live or on the journey to be. Stated differently, every day those banks that matter are joining. In reality, while there is a very long tail, the flow payments to or from a bank are likely to be to a bank at the beginning of the tail, not the end. Consequently, small banks should be taking an active approach to real-time payments now, and thinking about the possible ways to access the system, today.

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Support for Vendors

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